## I DO

## WE



An RTI Intervention
for Math Problem Solving
Grades 1-5
by Dr. Sherri Dobbs Santos

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ISBN: 978-1-257-91811-9
Special thanks to Lynda Clary-Burke for creating the rubric used in this manual for the problem solving assessments. Her brilliance, expertise, and insight are second to none.

Also, special thanks to Jenny Salter, my friend and colleague, for proofreading and editing this manual. Her eye for detail is impeccable.

Lastly, thank you to my daughter Christian Santos and her friend Zachary Geiwitz for solving each problem in the manual. Their diligence in double and triple checking the answers is greatly appreciated.

A spiral bound version of this book can be purchased at lulu.com

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## WHAT IS RTI?

Response to Intervention (RTI) is a multi-tier approach to the early identification and support of students with learning and behavior needs. The RTI process begins with high-quality instruction and universal screening of all children in the general education classroom. Struggling learners are provided with interventions at increasing levels of intensity to accelerate their rate of learning. These services may be provided by a variety of personnel, including general education teachers, special educators, and specialists. Progress is closely monitored to assess both the learning rate and level of performance of individual students. Educational decisions about the intensity and duration of interventions are based on individual student response to instruction. RTI is designed for use when making decisions in both general education and special education, creating a well-integrated system of instruction and intervention guided by child outcome data. (National Center for Learning Disabilities, 2008)

## RTI MODEL

The 'I DO - WE DO - YOU DO' intervention in this manual is one which can be used for RTI purposes but is also a model of what good teaching looks like. This manual includes the research behind the intervention, directions for the implementation of the intervention, and assessments that can be used for Progress Monitoring of the intervention. It is designed to provide the teacher/ interventionist with the tools necessary to improve student achievement in the area of math problem solving. The timeline of the intervention is 12 weeks with progress being monitored weekly. A total of 36 'I DO - WE DO - YOU DO' problem solving cards are included to guide both teachers and students through the problem solving process and provide a format through which ideas are modeled, discussed, explained, and solved. This format fosters a deeper understanding of the underlying thought processes involved with problem solving and encourages non-threatening, openended dialogue to occur between teachers and their students. The decision to adjust, revise, lengthen, or discontinue the intervention should be based on the data collected on a weekly basis and should be made in the context of a committee that includes the teacher, the student's parents, administrators, counselors, and/or other highly qualified educational personnel. The student's RTI should be assessed by looking at how much progress was made overall and where the student is functioning in relation to the standards set forth by the state and/or district. Students who make significant progress but who are still functioning below grade level may simply need more time to catch up. Just because a student is below grade level does not mean he/she has a disability and is a candidate for special education. The RTI process is an individualized process and rash decisions concerning a student's placement should be avoided at all costs.

## EVIDENCE BASED

The 'I DO - WE DO - YOU DO' Math Problem Solving Intervention was developed using the two strongest of eight recommendations cited in the following report:

Gersten, R., Beckmann, S., Clarke, B., Foegen, A., Marsh, L., Star, J. R., \& Witzel, B. (2009). Assisting students struggling with mathematics: Response to Intervention (R+I) for elementary and middle schools (NCEE 20094060). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/publications/practiceguides/.

Table I shows a summary of the report that was written by a panel of highly qualified individuals: "The recommendations were developed by a panel of researchers and practitioners with expertise in various dimensions of this topic. The panel includes a research mathematician active in issues related to K-8 mathematics education, two professors of mathematics education, several special educators, and a mathematics coach currently providing professional development in mathematics in schools. The panel members worked collaboratively to develop recommendations based on the best available research evidence and our expertise in mathematics, special education, research, and practice."
http://ies.ed.gov/ncee/wwc/pdf/practiceguides/rti_math_pg_042109.pdf
The panel used the criteria established by the What Works Clearinghouse to support each recommendation and to determine the level of evidence found to back them up. The level of strength of evidence found for each recommendation is explained below: $\underline{h t t p: / / i e s . e d . g o v / n c e e / w w c / p d f / p r a c t i c e g u i d e s / r t i ~ m a t h ~ p g ~ 042109 . p d f ~}$

Strong: refers to consistent and generalizable evidence that an intervention program causes better outcomes.
Moderate: refers either to evidence from studies that allow strong causal conclusions but cannot be generalized with assurance to the population on which a recommendation is focused (perhaps because the findings have not been widely replicated)-or to evidence from studies that are generalizable but have more causal ambiguity than offered by experimental designs (such as statistical models of correlational data or group comparison designs for which the equivalence of the groups at pretest is uncertain).

Low: refers to expert opinion based on reasonable extrapolations from research and theory on other topics and evidence from studies that do not meet the standards for moderate or strong evidence.

Table I: Recommendations and corresponding levels of evidence

| Recommendation |  | Level of <br> evidence |
| :--- | :---: | :---: |
| Tier I | Moderate |  |
| 1. Screen all students to identify those at risk for potential mathematics difficulties and provide interventions to students <br> identified as at risk. | Low |  |
| Tiers II and III | Lnstructional materials for students receiving interventions should focus intensely on in-depth treatment of whole |  |
| 2. <br> numbers in kindergarten through grade 5 and on rational numbers in grades 4 through 8. These materials should be selected <br> by committee. | Lon |  |
| 3. Instruction during the intervention should be explicit and systematic. This includes providing models of <br> proficient problem solving, verbalization of thought processes, guided practice, corrective feedback, and frequent <br> cumulative review. | Strong |  |
| 4. Interventions should include instruction on solving word problems that is based on common underlying structures. | Strong |  |
| 5. Intervention materials should include opportunities for students to work with visual representations of mathematical <br> ideas and interventionists should be proficient in the use of visual representations of mathematical ideas. | Moderate |  |
| 6. Interventions at all grade levels should devote about 10 minutes in each session to building fluent retrieval of basic <br> arithmetic facts. | Moderate |  |
| 7. Monitor the progress of students receiving supplemental instruction and other students who are at risk. | Low |  |
| 8. Include motivational strategies in Tier II and Tier III interventions. | Low |  |

[^0]
# THE TWO RECOMMENDATIONS WHICH SHAPED THE DESIGN OF THE 'I DO - WE DO - YOU DO' MATH PROBLEM SOLVING INTERVENTION WERE RECOMMENDATIONS \#3 AND \#4 (see 

 table on the previous page).
## RECOMMENDATION \#3

Instruction during the intervention should be explicit and systematic. This includes providing models of proficient problem solving, verbalization of thought processes, guided practice, corrective feedback, and frequent cumulative review.

The National Mathematics Advisory Panel (NMAP) defines explicit instruction as follows (2008, p. 23):

- "Teachers provide clear models for solving a problem type using an array of examples."
- "Students receive extensive practice in use of newly learned strategies and skills."
- "Students are provided with opportunities to think aloud (i.e., talk through the decisions they make and the steps they take)."
- "Students are provided with extensive feedback."

Research Citations for Explicit Instruction:
Artus, L. M., \& Dyrek, M. (1989). The effects of multiple strategy intervention on achievement in mathematics. Unpublished master's thesis, Saint Xavier College, Chicago.

Butler, F. M., Miller, S. P., Crehan, K., Babbitt, B., \& Pierce, T. (2003). Fraction instruction for students with mathematics disabilities: Comparing two teaching sequences. Learning Disabilities Research \& Practice, 18(20), 99-111.

Darch, C., Carnine, D., \& Gersten, R. (1984). Explicit instruction in mathematics problem solving. Journal of Educational Research, 776), 351-359.

Fuchs, L. S., Compton, D. L., Fuchs, D., Paulsen, K., Bryant, J. D., \& Hamlett, C. L. (2005). The prevention, identification, and cognitive determinants of math difficulty. Journal of Educational Psychology, 97(3), 493-513.

Fuchs, L. S., Fuchs, D., Craddock, C., Hollenbeck, K. N., \& Hamlett, C. L. (2008). Effects of small-group tutoring with and without validated classroom instruction on at-risk students' math problem solving: Are two tiers of prevention better than one? Journal of Educational Psychology, 100(3), 491-509.

Fuchs, L. S., Fuchs, D., Finelli, R., Courey, S. J., \& Hamlett, C. L. (2004). Expanding schema-based transfer instruction to help third graders solve real-life mathematical problems. American Educational Research Journal, 41(2), 419-445.

Fuchs, L. S., Fuchs, D., Prentice, K., Burch, M., Hamlett, C. L., Owen, R., et al. (2003a). Explicitly teaching for transfer: Effects on third-grade students' mathematical problem solving. Journal of Educational Psychology, 95(2), 293-305.

Fuchs, L. S., Fuchs, D., Prentice, K., Burch, M., Hamlett, C. L., Owen, R., et al. (2003b). Enhancing third-grade students' mathematical problem solving with self-regulated learning strategies. Journal of Educational Psychology, 95(2), 306-315.

Fuchs, L. S., Fuchs, D., Prentice, K., Hamlett, C. L., Finelli, R., \& Courey, S. J. (2004). Enhancing mathematical problem solving among third-grade students with schema-based instruction. Journal of Educational Psychology, 96(4), 635-647.

Fuchs, L. S., Powell, S. R., Hamlett, C. L., \& Fuchs, D. (2008). Remediating computational deficits at third grade: A randomized field trial. Journal of Research on Educational Effectiveness, 1(1), 2-32.

Fuchs, L. S., Seethaler, P. M., Powell, S. R., Fuchs, D., Hamlett, C. L., \& Fletcher, J. M. (2008). Effects of preventative tutoring on the mathematical problem solving of third- grade students with math and reading difficulties. Exceptional Children, 74(2), 155-173.

Jitendra, A. K., Griffin, C. C., McGoey, K., Gardill, M. C., Bhat, P., \& Riley, T. (1998). Effects of mathematical word problem solving by students at risk or with mild disabilities. The Journal of Educational Research, 91(6), 345-355.

Schunk, D. H., \& Cox, P. D. (1986). Strategy training and attributional feedback with learning disabled students. Journal of Educational Psychology, 78(3), 201-209.

Tournaki, N. (2003). The differential effects of teaching addition through strategy instruction versus drill and practice to students with and without learning disabilities. Journal of Learning Disabilities, 36(5), 449-458.

Walker, D. W., \& Poteet, J. A. (1989). A comparison of two methods of teaching mathematics story problemsolving with learning disabled students. National Forum of Special Education Journal, 1, 44-51.

Wilson, C. L., \& Sindelar, P. T. (1991). Direct instruction in math word problems: Students with learning disabilities. Exceptional Children, 57(6), 512-519.

Witzel, B. S. (2005). Using CRA to teach algebra to students with math difficulties in inclusive settings. Learning Disabilities-A Contemporary Journal, 3(2), 49-60.

Witzel, B. S., Mercer, C. D., \& Miller, M. D. (2003). Teaching algebra to students with learning difficulties: An investigation of an explicit instruction model. Learning Disabilities Research \& Practice, 18(2), 121-131.

Woodward, J. (2006). Developing automaticity in multiplication facts: Integrating strategy instruction with timed practice drills. Learning Disability Quarterly, 29(4), 269-289.

Xin, Y. P., Jitendra, A. K., \& Deatline-Buchman, A. (2005). Effects of mathematical word-problem-solving instruction on middle school students with learning problems. Journal of Special Education, 39(3), 181-192.
*NOTE: The NMAP notes that this does not mean that all mathematics instruction should be explicit. But it does recommend that struggling students receive some explicit instruction regularly and that some of the explicit instruction ensure that students possess the foundational skills and conceptual knowledge necessary for understanding their grade-level mathematics. National Mathematics Advisory Panel (2008).

The NMAP supports recommendation \#3 and believes that districts and schools should select materials for interventions that reflect this orientation. In addition, professional development for interventionists should contain guidance on these components of explicit instruction.

## LEVEL OF EVIDENCE: STRONG

The NMAP judged the level of evidence supporting this recommendation to be strong. This recommendation is based on six randomized controlled trials that met WWC standards or met standards with reservations and that examined the effectiveness of explicit and systematic instruction in mathematics interventions.

## Research Citations that Support Recommendation \#3 (the six randomized controlled trials):

Darch, C., Carnine, D., \& Gersten, R. (1984). Explicit instruction in mathematics problem solving. Journal of Educational Research, 77(6), 351-359.

Fuchs, L. S., Fuchs, D., Prentice, K., Burch, M., Hamlett, C. L., Owen, R., et al. (2003a). Explicitly teaching for transfer: Effects on third-grade students' mathematical problem solving. Journal of Educational Psychology, 95(2), 293-305.

Jitendra, A. K., Griffin, C. C., McGoey, K., Gardill, M. C., Bhat, P., \& Riley, T. (1998). Effects of mathematical word problem solving by students at risk or with mild disabilities. The Journal of Educational Research, 91(6), 345-355.

Schunk, D. H., \& Cox, P. D. (1986). Strategy training and attributional feedback with learning disabled students. Journal of Educational Psychology, 78(3), 201-209.

Tournaki, N. (2003). The differential effects of teaching addition through strategy instruction versus drill and practice to students with and without learning disabilities. Journal of Learning Disabilities, 36(5), 449-458.

Wilson, C. L., \& Sindelar, P. T. (1991). Direct instruction in math word problems: Students with learning disabilities. Exceptional Children, 57(6), 512-519.

The results of the six randomized controlled trials of mathematics interventions show extensive support for various combinations of the following components of explicit and systematic instruction:

- INSTRUCTION DURING THE INTERVENTION SHOULD INCLUDE TEACHER DEMONSTRATION \& STUDENT VERBALIZATION
- INSTRUCTION DURING THE INTERVENTION SHOULD BE EXPLICIT AND SYSTEMATIC GUIDED PRACTICE
- INSTRUCTION DURING THE INTERVENTION SHOULD INCLUDE CORRECTIVE FEEDBACK
- INSTRUCTION DURING THE INTERVENTION SHOULD INCLUDE SCAFFOLDED PRACTICE

These studies have shown that explicit and systematic instruction can significantly improve proficiency in word problem solving and operations across grade levels and diverse student populations.

All six studies examined interventions that included teacher demonstrations early in the lessons. For example, three studies included instruction that began with the teacher verbalizing aloud the steps to solve sample mathematics problems. However, the effects of this component of explicit instruction cannot be evaluated from these studies because the demonstration procedure was used in instruction for students in both treatment and comparison groups.

Scaffolded practice, a transfer of control of problem solving from the teacher to the student, was a component in four of the six studies. Although it is not possible to parse the effects of scaffolded instruction from the other components of instruction, the intervention groups in each study demonstrated significant positive gains on word problem proficiencies or accuracy measures.

Three of the six studies included opportunities for students to verbalize the steps to solve a problem. Again, although effects of the interventions were statistically significant and positive on measures of word problems, operations, or accuracy, the effects cannot be attributed to a single component of these multicomponent interventions.

Similarly, four of the six studies included immediate corrective feedback, and the effects of these interventions were positive and significant on word problems and measures of operations skills, but the effects of the corrective feedback component cannot be isolated from the effects of other components in three cases. With only one study in the pool of six including cumulative review as part of the intervention, Fuchs et al. (2003a), the support for this component of explicit instruction is not as strong as it is for the other components. But this study did have statistically significant positive effects in favor of the instructional group that received explicit instruction in strategies for solving word problems, including cumulative review.

THE SECOND RECOMMENDATION WHICH SHAPED THE DESIGN OF THE 'I DO - WE DO - yOU DO' MATH PROBLEM SOLVING INTERVENTION WAS RECOMMENDATION \#4 (see table).

Recommendation \#4:<br>Interventions should include instruction on solving word problems that is based on common underlying structures.

Students who have difficulties in mathematics typically experience severe difficulties in solving word problems related to the mathematics concepts and operations they are learning. This is a major impediment for future success in any math-related discipline. Based on the importance of building proficiency and the convergent findings from a body of high-quality research, the panel recommends that interventions include systematic explicit instruction on solving word problems, using the problems' underlying structure. Simple word problems give meaning to mathematical operations such as subtraction or multiplication. When students are taught the underlying structure of a word problem, they not only have greater success in problem solving but can also gain insight into the deeper mathematical ideas in word problems. The panel also recommends systematic instruction on the structural connections between known, familiar word problems and unfamiliar, new problems. By making explicit the underlying structural connections between familiar and unfamiliar problems, students will know when to apply the solution methods they have learned. (Gersten, R., Beckmann, S., Clarke, B., Foegen, A., Marsh, L., Star, J. R., \& Witzel, B. [2009])

## LEVEL OF EVIDENCE: STRONG

The panel judged the level of evidence supporting this recommendation to be strong. This recommendation is based on nine randomized controlled trials that met WWC standards or met standards with reservations and that examined the effectiveness of word problem-solving strategies.

Research Citations that Support Recommendation \#4 (the nine randomized controlled trials):
Darch, C., Carnine, D., \& Gersten, R. (1984). Explicit instruction in mathematics problem solving. Journal of Educational Research, 776), 351-359.

Fuchs, L. S., Fuchs, D., Craddock, C., Hollenbeck, K. N., \& Hamlett, C. L. (2008). Effects of small-group tutoring with and without validated classroom instruction on at-risk students' math problem solving: Are two tiers of prevention better than one? Journal of Educational Psychology, 100(3), 491-509.

Fuchs, L. S., Fuchs, D., Finelli, R., Courey, S. J., \& Hamlett, C. L. (2004). Expanding schema-based transfer instruction to help third graders solve real-life mathematical problems. American Educational Research Journal, 41(2), 419-445.

Fuchs, L. S., Fuchs, D., Prentice, K., Burch, M., Hamlett, C. L., Owen, R., et al. (2003a). Explicitly teaching for transfer: Effects on third-grade students' mathematical problem solving. Journal of Educational Psychology, 95(2), 293-305.

Fuchs, L. S., Fuchs, D., Prentice, K., Burch, M., Hamlett, C. L., Owen, R., et al. (2003b). Enhancing third-grade students' mathematical problem solving with self-regulated learning strategies. Journal of Educational Psychology, 95(2), 306-315.

Fuchs, L. S., Fuchs, D., Prentice, K., Hamlett, C. L., Finelli, R., \& Courey, S. J. (2004). Enhancing mathematical problem solving among third-grade students with schema-based instruction. Journal of Educational Psychology, 96(4), 635-647.

Fuchs, L. S., Seethaler, P. M., Powell, S. R., Fuchs, D., Hamlett, C. L., \& Fletcher, J. M. (2008). Effects of preventative tutoring on the mathematical problem solving of third- grade students with math and reading difficulties. Exceptional Children, 74(2), 155-173.

Jitendra, A. K., Griffin, C. C., McGoey, K., Gardill, M. C., Bhat, P., \& Riley, T. (1998). Effects of mathematical word problem solving by students at risk or with mild disabilities. The Journal of Educational Research, 91(6), 345-355.

Xin, Y. P., Jitendra, A. K., \& Deatline-Buchman, A. (2005). Effects of mathematical word-problem-solving instruction on middle school students with learning problems. Journal of Special Education, 39(3), 181-192.

The aforementioned research demonstrates that instruction on solving word problems based on underlying problem structure leads to statistically significant positive effects on measures of word problem solving. Three of the randomized controlled trials isolated this practice. In these studies, interventionists taught students to identify problems of a given type by focusing on the problem structure and then to design and execute appropriate solution strategies for each problem. These techniques typically led to significant and positive effects on word-problem outcomes for students

Six of the randomized controlled trials took the instructional intervention on problem structure a step further. They demonstrated that teaching students to distinguish superficial from substantive information in problems also leads to marginally or statistically significant positive effects on measures of word problem solving. After students were explicitly taught the pertinent structural features and problem-solution methods for different problem types, they were taught superficial problem features that can change a problem without altering its underlying structure. They were taught to distinguish substantive information from superficial information in order to solve problems that appear new but really fit into one of the categories of problems they already know how to solve. They were also taught that the same underlying problem structures can be applied to problems that are presented in graphic form (for example, with tables or maps). These are precisely the issues that often confuse and derail students with difficulties in mathematics. These six studies consistently demonstrated marginally or statistically significant positive effects on an array of word problem-solving proficiencies for students experiencing difficulties in mathematics. (Gersten, R., Beckmann, S., Clarke, B., Foegen, A., Marsh, L., Star, J. R., \& Witzel, B. [2009])

## OVERVIEW of the 'I DO - WE DO - YOU DO' INTERVENTION

## UNIVERSAL SCREENING

A Universal Screening/Baseline Assessment must be given BEFORE any intervention actually begins. Additionally, the student must complete the assessment INDEPENDENTLY without any assistance so as to get an accurate picture of where he/she is functioning. It is the Universal Screening that alerts the teacher/tutor to the need for further intervention. Other factors may also indicate the need for intervention such as poor classroom performance, substandard scores on standardized tests, and/or low scores on common formative assessments. The Universal Screening for the 'I DO - WE DO - YOU DO' Math Problem Solving Intervention is a sample math word problem from the student's grade level and is identical to the data point assessments given weekly. Each assessment is scored using a rubric designed specifically to assess five key elements of math problem solving. Developed by Lynda Clary-Burke, an elementary school teacher in Henry County, Georgia, the problem solving rubric gets to the core of where the student is struggling and gives the teacher/interventionist/tutor valuable information as to what to emphasize or focus on in future intervention sessions. The continuity between the Universal Screening and the Data Point Assessments makes the analysis of the data collected throughout the intervention period easier to read and understand. An educator will essentially be comparing 'oranges to oranges' since the assessments are the same (the problems are different for each assessment but the design and the processes for completion are identical).

## PROGRESS MONITORING

As previously stated, in order to see whether or not the 'I DO - WE DO - YOU DO' Math Problem Solving Intervention is effective, data should be gathered on a weekly basis through data point assessments. As with the Universal Screening, the student completes each data point assessment INDEPENDENTLY without assistance. Each assessment is scored using the rubric below the actual problem the student completes. The rubric assesses the following five problem solving elements: Problem Solving, Reasoning and Proof, Communications, Connections, and Representation. Each element is scored on a scale of '1' to '4' with '3' being the goal score (proficient). The 1-4 scale is defined by the following descriptors:
$1=$ Not Evident
$2=$ Emerging
$3=$ Proficient
$4=$ Exemplary

## PROGRESS MONITORING GRAPHS AND DATA ANALYSIS

For the purpose of collecting data for the 'I DO - WE DO - YOU DO' Math Problem Solving Intervention, a total of five graphs are needed; one for each of the five elements from the assessment rubric. The graphs that follow are examples of how the data should be documented and what each graph may look like after a 12 week implementation period is complete. Careful examination of the data collected each week must occur (preferably in the context of a data analysis team) in order to adequately assess the effectiveness of the intervention and to pinpoint areas of weakness. This on-going weekly review of the data is crucial and should be the catalyst which drives future instruction for the struggling student.

SAMPLE GRAPHS FOR STUDENT ' $X$ ':

| SAMPLE GRAPH A: |  |  |  | A: <br> dent Score | Element: Problem Solving |  |  |  |  | Scale Interpretation: <br> 1=Not Evident <br> 2=Emerging <br> 3=Proficient <br> 4=Exemplary |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{ll} \stackrel{0}{0} & 4 \\ 0 \\ N & 3 \\ \stackrel{\rightharpoonup}{0} & 2 \\ \stackrel{\rightharpoonup}{D} & 2 \\ \ddot{\sim} & 1 \\ & 0 \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | US/BL | DP1 | DP2 | DP3 | DP4 | DP5 | DP6 | DP7 | DP8 | DP9 | DP10 | DP11 | DP12 |
| Date | 2/20/2011 | 2/27/2011 | 3/3/2011 | 3/10/2011 | 3/17/2011 | 3/24/2011 | 4/1/2011 | 4/8/2011 | 4/15/2011 | 4/22/2011 | 4/29/2011 | 5/6/2011 | 5/13/2011 |
| Student Score | 2 | 3 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 1 | 2 |
| Goal Score | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |


| SAM <br>  | $\square$ Student Score $\longrightarrow$ Goal Score |  |  |  |  |  |  |  | roof | Scale Interpretation: <br> 1=Not Evident <br> 2=Emerging <br> 3=Proficient <br> 4=Exemplary |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | US/BL | DP1 | DP2 | DP3 | DP4 | DP5 | DP6 | DP7 | DP8 | DP9 | DP10 | DP11 | DP12 |
| Date | 2/20/2011 | 2/27/2011 | 3/3/2011 | 3/10/2011 | 3/17/2011 | 3/24/2011 | 4/1/2011 | 4/8/2011 | 4/15/2011 | 4/22/2011 | 4/29/2011 | 5/6/2011 | 5/13/2011 |
| Student Score | 2 | 3 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 1 | 2 |
| Goal Score | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |




| SAMPLE GRAPH E: |  |  |  |  | Element: Representations$\qquad$ Goal Score |  |  |  |  | Scale Interpretation: <br> 1=Not Evident <br> 2=Emerging <br> 3=Proficient <br> 4=Exemplary |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | + |  |  |  |  |  |  |  |  |  |  |  |  |
|  | US/BL | DP1 | DP2 | DP3 | DP4 | DP5 | DP6 | DP7 | DP8 | DP9 | DP10 | DP11 | DP12 |
| Date | 2/20/2011 | 2/27/2011 | 3/3/2011 | 3/10/2011 | 3/17/2011 | 3/24/2011 | 4/1/2011 | 4/8/2011 | 4/15/2011 | 4/22/2011 | 4/29/2011 | 5/6/2011 | 5/13/2011 |
| Student Score | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 4 | 3 |
| Goal Score | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

What do the sample graphs on the previous page tell us about Student ' $X$ '? By looking at each element's graph separately, one can pinpoint that this student mostly struggles with the communications aspect of problem solving. This gives the teacher/tutor valuable information which should be used to guide future instruction with this student. The teacher/tutor will know that the student needs lots of practice 'thinking aloud' and explaining the processes helshe uses to solve a problem. The teacher/tutor should allow ample time for open and thought provoking dialog to occur as the student works through the processes of problem solving and should provide instant feedback and encouragement to reassure the student as he/she works through the intervention problems. The graphs above also show that the student has made great strides in being able to make connections to similar problems or ideas as well as being able to create representations to solve problems. However, continued focus on reasoning and proof and problem solving are needed to ensure a greater likelihood of overall success.

## DOCUMENTATION FOR PROGRESS MONITORING

After each weekly data point assessment, the teacher/tutor should plot the scores on the five graphs on the following 2 pages. Graphs are an easy-to-read 'snap shot' of how the student performs each week and are an excellent tool to use when looking at overall progress and effectiveness of the intervention. The data should be analyzed weekly rather than at the end of the 12 weeks so that changes or adjustments to the intervention may be made DURING the 12 week period. The progress monitoring graphs on the following two pages can be used for any grade (in this manual grades 1 through 5 are the focus but the same process can be used for grades higher than 5).

SPECIAL NOTE: The word problems in each section of this manual represent appropriate grade level problems based on the Georgia Performance Standards (GPS). If the problems designated for a particular grade level are too difficult for a student in need of the 'I DO - WE DO - YOU DO' intervention, then use the materials for the grade level below the grade of the student. Although mathematical computation is important, the main purpose of the 'I DO - WE DO - YOU DO' intervention is to teach students the underlying structures and processes of problem solving.

Student Name: $\qquad$ Grade: $\qquad$ Teacher: $\qquad$

## 'I DO - WE DO - YOU DO' PROGRESS MONITORING

Plot below the score of each element assessed on a scale from 1-4 with the goal score equaling 3 (the goal line has already been graphed). Each of the 5 graphs that follow represent one of the five Problem Solving elements. Be sure to include the Universal Screening/Baseline (assessed BEFORE the intervention began) so as to have a point to which other assessments can be compared.


## Element: Reasoning and Proof


$\qquad$ Grade: $\qquad$ Teacher: $\qquad$

## Element: Communication



Element: Connections
$\square$ Student Score Goal Score

|  | ¢ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | US/BL | DP1 | DP2 | DP3 | DP4 | DP5 | DP6 | DP7 | DP8 | DP9 | DP10 | DP11 | DP12 |
| Date |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Student Score |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Goal Score | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

## Element: Representation

$\longleftarrow$ Student Score $\_$Goal Score


## IMPLEMENTATION OF THE 'I DO - WE DO - YOU DO' INTERVENTION

Make a copy of all 'Problem Solving Cards' for the grade level needed. There are a total of 36 Problem Solving Sheets per grade level. However, if a skill is not covered or more cards are needed, feel free to create your own using the blank template on page 73.

Below are the steps that need to be followed for each intervention session:
STEP ONE: Teacher/tutor/interventionist uses the darkly shaded "TEACHER MODELS" card to show the student the steps in the problem solving process (reading the problem, talking about the problem, writing how to solve the problem, and then solving the problem using pictures, words, or numbers).
STEP TWO: The teacher/tutor/interventionist and the student work together using the lightly shaded "TEACHER AND STUDENT COLLABORATE" card to solve a similar problem. THE TEACHER WALKS THE STUDENT THROUGH EACH STEP AND PROVIDES FEEDBACK AND ENCOURAGEMENT THROUGHOUT.
STEP THREE: The student uses the "STUDENT COMPLETES INDEPENDENTLY" card to solve another similar problem independently (as teacher/tutor/interventionist looks on and supervises). If the student 'gets stuck', the teacher/tutor/interventionist should refer back to the "TEACHER MODEL" problem and review and reteach if necessary.

## DELIVERY METHOD

The 'I DO - WE DO - YOU DO' math problem solving intervention is most conducive to one-on-one instruction in which the teacher/tutor works individually with the student. However, this intervention can also be implemented with a small group of two to five students. If a small group approach is used, be sure that every student in the group has his/her own set of 'Problem Solving Cards'.

## INTERVENTION SESSIONS

A total of 36 "I DO - WE DO - YOU DO' Problem Solving Cards are included in this manual for each grade $1^{\text {st }}-5^{\text {th }}$ and cover a variety of problems appropriate for the specified grade level. Each card is designed to represent one complete RTI intervention session lasting approximately 20 minutes. It is imperative that each intervention session follow the specific steps listed above and is completed in a thorough manner. Going over each problem briefly or just handing the student a sheet to complete is NOT a part of this intervention. The 'I DO - WE DO - YOU DO' Math Problem Solving Intervention is intended to address areas of weakness and actually impact overall student performance in the area of math problem solving.

## LENGTH OF INTERVENTION

The 'I DO - WE DO - YOU DO' intervention is designed to be implemented three times per week for 20 minutes per session for a total of 12 weeks. Weekly data point assessments are given on a day in which an intervention session does not occur (i.e., Intervention Sessions $=M, T u, W$, Assessment $=$ Friday).

$\qquad$

## Math Problem Solving RTI Progress Monitoring Assessment SAMPLE

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#SAMPLE (given to student after completing__ weeks of the intervention)

Step One: Read the problem
Teddy the bear chased 4 hunters up a tree on Monday and 7 hunters up a tree on Tuesday.

How many more hunters did Teddy chase up a tree on

Tuesday than Monday? 3

Step Two: Think about the problem and write HOW you will solve the problem on the lines below: First I would think about the problem and create a movie in my head. I would see a bear chasing hunters through the woods and up into a tree. On the first day (Monday) I would see 4 men in a tree with Teddy looking at them from the bottom and I would see 7 hunters in the tree on Tuesday. I noticed the words How many more' and know that I need to subtract the amount of men in the tree on Monday from the amount of men in the tree on Tuesday.

Step Three: Solve the problem using pictures, words, or numbers.


Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connection | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student' representations $f$ e labeled ana cor ect. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer /s correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/hen work. <br> No one had to cress about thes stu ent's lines of thinkins his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her 9 some other work d he/she noted it/h some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |

## UNIVERSAL SCREENING/BASELINE ASSESSMENT 1st grade

Directions: Have the student complete the baseline assessment on this page before beginning the "I DO - WE DO - YOU DO" Math Problem Solving Intervention. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

Step One: Read the problem
There are 3 red grapes on the table. Laura puts 2 green grapes on the table.
How many grapes are there in all?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:
$\qquad$

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer ... <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He /she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 4 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
|  | core: | Sc | Score: | Score: __ Score |  |

Math Problem Solving RTI Progress Monitoring Assessment - 1st grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#1 (given to student after completing 1 week of the intervention)

| Step One: Read the problem | Step Two: Think about the problem <br> and write HOW you will solve the | Step Three: Solve the problem <br> using pictures, words, or numbers. <br> Dante put 3 books on the <br> problem on the lines below: |
| :--- | :--- | :--- |
| shelf. His friend Tray put |  |  |
| 4 more books on the |  |  |
| shelf. How many books |  |  |
| are there now? |  |  |

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer ... <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He /she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

Student Name:

## Math Problem Solving RTI Progress Monitoring Assessment - 1st grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#2 (given to student after completing 2 weeks of the intervention)

Step One: Read the problem
Eight puppies are in the cage. Princess takes two out of the cage. How many are still in the cage?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer ... <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - 1st grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#3 (given to student after completing 3 weeks of the intervention)

| Step One: Read the problem | Step Two: Think about the problem <br> and write HOW you will solve the <br> problem on the lines below: |
| :--- | :--- |
| Barbie has 4 dimes. She |  |
| loses 2 dimes. |  |
| How many dimes does she Three: Solve the problem |  |
| have left? |  |
| How much money does words, or numbers. |  |
| she have left? |  |

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer ... <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emergin | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| 24 | Score: | Score: | Score: | Score: | Score: |
|  | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $1{ }^{\text {ST GRADE }}$ |

Student Name:
Date:
Math Problem Solving RTI Progress Monitoring Assessment - 1st grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#4 (given to student after completing 4 weeks of the intervention)
Step One: Read the problem
Carlos has 5 yellow blocks. He also has 6 purple blocks.

How many more purple blocks does he have than yellow blocks?

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer ... <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - Mst grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#5 (given to student after completing 5 weeks of the intervention)

Step One: Read the problem
Kermit jumps 3 miles every day. How many miles will he jump in 2 days? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the areas) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.


Student Name:
Date:
Math Problem Solving RTI Progress Monitoring Assessment - 1st grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#6 (given to student after completing 6 weeks of the intervention)
Step One: Read the problem
Kenny bought a total of 16 toy cars. Two of the cars are blue and six of the cars are red.

How many cars are not blue or red?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer ... <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - 1st grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#7 (given to student after completing 7 weeks of the intervention)

> Step One: Read the problem Fannie has 50 magazines. How many stacks of 10 magazines does she have?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

| problem on the lines below. |
| :--- |
| $\square$ |
| $\square$ |
| $\square$ |
| $\square$ |
| $\square$ |

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.


Student Name:

## Math Problem Solving RTI Progress Monitoring Assessment - 1st grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#8 (given to student after completing 8 weeks of the intervention)

| Step One: Read the problem | Step Two: Think about the problem and write HOW you will solve the | Step Three: Solve the problem |
| :---: | :---: | :---: |
| Lester has 72 plants. Louise has 58 plants. Darlene has fewer plants | and write HOW you will solve the problem on the lines below: |  |
| than Lester but more plants than |  |  |
| Louise. How many plants might |  |  |
| Darlene have? |  |  |
| 73 plants |  |  |
| 57 plants |  |  |
| 70 plants |  |  |
| 56 plants |  |  |
| NOW ... |  |  |
| Step Two: Think about and talk about the problem |  |  |

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer ... <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - 1st grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#9 (given to student after completing 9 weeks of the intervention)

Step One: Read the problem
Ronald's dog weighs 36 pounds. Billy's dog weighs 1 pound more than Ronald's dog. Janet's dog weighs 1 pound less than Ronald's dog. How much does Billy's dog weigh?
How much does Janet's dog weigh?


Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.


Student Name:
Date:
Math Problem Solving RTI Progress Monitoring Assessment - 1st grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#10 (given to student after completing 10 weeks of the intervention)

Step One: Read the problem
Beatrice used 14
strawberries to decorate cupcakes for her children. If each cupcake has 2 strawberries, how many children does Beatrice have?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer ... <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - 1st grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#11 (given to student after completing 11 weeks of the intervention)

Step One: Read the problem

Scotty made 36 canoes last year and 49 canoes this year. How many more canoes did he make this year than last year?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer ... <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him $/ \mathrm{her}$ of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| 32 | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - 1st grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#12 (given to student after completing 12 weeks of the intervention)

> Step One: Read the problem
> Mr. Price has 16 people in his exercise class but only has 11 mats. How many more people than mats are there?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below: $\square$
$\square$
$\square$
$\square$
$\square$
$\square$
$\square$
$\square$

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer ... <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## I DO

## WE



## Math Problem Solving <br> Cards - $1^{\text {st }}$ Grade

|  |  |  | Date: |
| :---: | :---: | :---: | :---: |
| 0 0 $H$ | There are 2 ladybugs. <br> There are 3 bees. <br> There are 3 flies. | Step Three: Write HOW you will solve the problem on the lines below: <br> First I would think about what the problem wants me to find out. It says I need to find out how many insects there are in all. I know that | , or numbers. |
| SAMPLE CARD Teacher Models | How many insects are there in all? 8 | ladybugs are insects. I know that bees are insects. I know that flies are insects too. I would add the three numbers to get my answer. I would also think in my head what the problem would look like. I see myself surrounded by 2 ladybugs, 3 bees, and 3 flies. I am counting them all to get my answer. |  |
| $\pm$ | There is 1 rose. <br> There are 2 tulips. <br> There are 3 daisies. <br> How many flowers are there in all? 6 | Step Three: Write HOW you will solve the problem on the lines below: <br> When we read the problem we know we have to find out how many flowers there are in all. The words 'in all' mean we need to add the numbers. We know that a rose is a flower as well as tulip and a daisy so we'll add the numbers 1 (for the rose), 2 (for the tulips), and 3 (for the daisies). We will draw a picture of all of the flowers to give us a visual of what the problem looks like. | Step Four: Solve the problem using pictures, words, or numbers. |
|  |  |  |  |
|  | Step One: Read the problem <br> There are 3 little balls. <br> There are 2 medium sized balls. | Step Three: Write HOW you will solve the problem on the lines below: <br> I read the problem and it tells me to find out how many balls there are in all. I know that IN ALL | Step Four: Solve the problem using pictures, words, or numbers. |
|  | There are 4 big balls. <br> How many balls are there in all? 9 <br> NOW .. <br> Step Two: Think about and talk about the problem | means to add. I will draw a picture that shows 3 little balls, 2 medium sized balls, and 4 big balls. I'll write the word BIG on all the big balls, the word MEDIUM on all the medium balls, and the word LITTLE on all the little balls. I will count how many balls there are in all. The problem I will write down will be $4+2+3$. | Bithle Ciitle <br> big -4 medium $=2$ intle $=3$ $4+2+3=9$ |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | There are 3 black cats. <br> There are 4 white cats. <br> There are 2 brown dogs. |  |  |
|  | How many cats are there in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \boldsymbol{B} \end{aligned}$ | Step One: Read the problem <br> There are 6 yellow flowers. <br> There are 2 purple flowers. <br> There are 5 trees. | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How many flowers are there in all? $\qquad$ |  |  |
| 0 0 2 0 | Step One: Read the problem <br> There are 4 little elephants. There are 8 tall giraffes. There are 5 big elephants. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How many elephants are there in all? $\qquad$ |  |  |

Student Name:


Student Name:


Student Name:
[__
Step One: Read the problem
0 Which is a way to make 6?

$$
2+1
$$

$$
3+1
$$

$$
4+1
$$

$$
5+1
$$

NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem

Which is a way to make $5 ?$

## WE DO

Teacher \& Student
Collaborate

$$
4+2
$$

$5+5$
$3+2$
$6+1$
NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem
Which is a way to make 7 ?

$$
\begin{aligned}
& 6+0 \\
& 3+4
\end{aligned}
$$

Card 4 Student Completes

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Step One: Read the problem


There are 4 apples on the table.
Erin eats 2 apples.
How many apples are left?

NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem


Buster the dog sees 5 cats in the yard. He barks and 4 cats run away.

How many cats are still in the yard? $\qquad$

NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem
There are 7 coconuts in the coconut tree. Tarzan climbs the tree and throws down 3 coconuts.

How many coconuts are still in the tree? $\qquad$

NOW ...
Step Two: Think about and talk about the problem

Date:
$\left.\begin{array}{l|l}\begin{array}{l}\text { Step Three: Write HOW you will } \\ \text { solve the problem on the lines } \\ \text { below: }\end{array} & \begin{array}{l}\text { Step Four: Solve the problem } \\ \text { using pictures, words, or numbers. }\end{array} \\ \hline= & \end{array}\right]$

Student Name:

| $\bigcirc$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | There are 7 fish in the lake. Bob catches 2 fish. | $\qquad$ |  |
|  | How many fish are still in the lake? $\qquad$ |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem | - |  |
| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
|  | There are 8 books on the shelf. Sally takes 4 books home to read. How many books are left on the shelf? |  |  |
|  |  | $\qquad$ |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem | $\qquad$ |  |
| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
|  | There are 6 chairs around the kitchen table. Buster takes a chair outside and Stella takes a chair to her room. How many chairs are still at the kitchen table? |  |  |
|  |  |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem | $\qquad$ |  |

Student Name:
Step One: Read the problem
0
1
1
 about the problem
Step One: Read the problem
Jamal put 5 quarters in his pocket to pay for lunch. He lost 2 quarters on his way to school.

How many quarters did
䓂 Jamal have left to give to

How much money did he have left?

NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem
Mrs. Roma had 8 dimes. She gave 1 dime to Hector. She gave 2 dimes to Maria.

How many dimes did she have left? $\qquad$
How much money did she have left? $\qquad$
NOW ...
Step Two: Think about and talk about the problem

Date:
$\left.\begin{array}{|l|l}\begin{array}{l}\text { Step Three: Write HOW you will } \\ \text { solve the problem on the lines } \\ \text { below: }\end{array} & \begin{array}{l}\text { Step Four: Solve the problem } \\ \text { using pictures, words, or numbers. }\end{array} \\ \hline & \end{array}\right]$

Step Three: Write HOW you will solve the problem on the lines below:

Step Three: Write HOW you will solve the problem on the lines below: below:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
using pictures, words, or numbers.

Student Name:


Student Name:


Student Name:


Student Name:


Student Name:

| $\begin{aligned} & 0 \\ & -1 \end{aligned}$ | Step One: Read the problem Use the number line to find out which number sentences are correct below. |
| :---: | :---: |
|  | Circle all problems that are correct. $\begin{aligned} & 8+1=9 \\ & 6-3=2 \\ & 5-2=3 \\ & 4+6=10 \end{aligned}$ <br> NOW ... <br> Step Two: Think about and talk about the problem |
| 4 | Step One: Read the problem Use the number line to find out which number sentences are correct below. |
| Card 13 Teacher \& Student Collaborate | Circle all problems that are correct. $\begin{gathered} 10-4=4 \\ 1+1=3 \\ 7+2=9 \\ 7-3=4 \end{gathered}$ <br> NOW ... <br> Step Two: Think about and talk about the problem |
|  | Step One: Read the problem Use the number line to find out which number sentences are correct below. |
|  | $\begin{array}{lllllllllll}0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10\end{array}$ Circle all problems that are correct. $\begin{aligned} & 6-6=6 \\ & 5+0=5 \\ & 4-2=3 \\ & 6+3=9 \end{aligned}$ <br> NOW ... <br> Step Two: Think about and talk about the problem |

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Step One: Read the problem
What are the fact family sentences for the following numbers?


NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem
What are the fact family sentences for the following numbers?
 about the problem
Step One: Read the problem
What are the fact family sentences for the following numbers?


NOW ...
Step Two: Think about and talk about the problem

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> What are the numbers in this fact family? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| Card 15 Teacher Models | $\begin{aligned} & 6+2=8 \\ & 2+6=8 \\ & 8-2=6 \\ & 8-6=2 \end{aligned}$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & 8 \end{aligned}$ | Step One: Read the problem <br> What are the numbers in this fact family? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | $\begin{aligned} & 5+7=12 \\ & 7+5=12 \\ & 12-7=5 \\ & 12-5=7 \end{aligned}$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \text { o } \\ & \lambda \end{aligned}$ | Step One: Read the problem <br> What are the numbers in this fact family? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | $\begin{aligned} & 4+5=9 \\ & 5+4=9 \\ & 9-5=4 \\ & 9-4=5 \end{aligned}$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |

Student Name:
Step One: Read the problem
Use the graph below to answer the questions below:


How many children liked triangles?
How many children liked
rectangles?
How many more children liked circles than triangles?
NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem
Use the graph below to answer the questions below:

| Our Favorite Colors |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Red | Red | Red | Red |  |
| Blue | Blue | Blue | Blue | Blue |
| Green | Green | Green |  |  |

Teacher \& Student
Collaborate
How many children like green?

How many children liked blue?

How many more children liked red
than green? $\qquad$
NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem Use the graph below to answer the questions below:

| Our Favorite Pets |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Bird | Bird | Bird |  |  |
| Cat | Cat | Cat | Cat | Cat |
| Dog | Dog | Dog | Dog |  |

How many children liked dogs? $\qquad$
How many children liked cats? How many more children liked cats than birds? $\qquad$
NOW ...
Step Two: Think about and talk about the problem

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$ solve the problem on the lines below:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:
Step One: Read the problem
Pears come in baskets of 10. Mr. Rogers has 4 baskets of pears with 6 pears left over. How many pears does Mr. Rogers have? $\qquad$ (use base-ten blocks to help illustrate this concept)

NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem
Carrots come in bundles of
10. Samantha has 8 bundles
of carrots with 9 carrots left over.

## Teacher \& Student Collaborate

NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem

Cards come in boxes of 10. Roxie has 3 boxes of cards with 7 cards left over. How many cards does she have total? $\qquad$

NOW ...
Step Two: Think about and talk about the problem

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

| $\begin{aligned} & O \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> Jazmine puts her rings in 3 groups of 10 . She has 5 rings left over. How many rings does Jazmine have? $\qquad$ (use base-ten blocks to help illustrate this concept) <br> NOW ... <br> Step Two: Think about and talk about the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| $\begin{aligned} & \frac{\mathrm{n}}{\stackrel{0}{0}} \\ & \frac{0}{2} \end{aligned}$ |  |  |  |
| $\begin{aligned} & \text { تे } \\ & \text { D } \end{aligned}$ |  | $\qquad$ |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & \underset{B}{3} \end{aligned}$ | Step One: Read the problem <br> Jeff caught 4 groups of 10 fish with 8 left over. How many fish did Jeff catch? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & > \end{aligned}$ | Step One: Read the problem <br> Marie puts her pictures in 6 groups of 10 with 7 left over. How many pictures does Marie have? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem |  |  |

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines | Step Four: Solve the problem <br> using pictures, words, or numbers. <br> below: |
| :--- | :--- | :--- | :--- | :--- |
| Which symbol would make |  |  |  |
| the problem below true? |  |  |  |

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Date:
Step One: Read the problem
8

Hilda weighs 68 pounds. Marcus weighs 1 pound more than Hilda. Tiffany weighs 1 pound less than Hilda.
$\frac{\frac{n}{0}}{\frac{0}{0}}$ How much does Marcus weigh?
How much does Tiffany weigh? $\qquad$ NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem
Ramon slept for 89 minutes. Pablo slept for 1 minute longer than Ramon. Oscar slept for 1 minute less than Ramon.
How many minutes did Pablo sleep? $\qquad$ How many minutes did Oscar sleep? $\qquad$
NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem
Jamie found 74 seashells on the beach. Gary found 1 seashell more than Jamie. Wayne found 1 seashell less than Jamie.
How many seashells did Gary find? $\qquad$
How many seashells did Wayne find? $\qquad$
NOW ...
Step Two: Think about and talk about the problem
$\left.\begin{array}{l|l}\begin{array}{l}\text { Step Three: Write HOW you will } \\ \text { solve the problem on the lines } \\ \text { below: }\end{array} & \begin{array}{l}\text { Step Four: Solve the problem } \\ \text { using pictures, words, or numbers. }\end{array} \\ \hline= & \end{array}\right]$
$\qquad$ below:

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines |
| :---: | :--- | :--- |
| below: |  |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:

| $\begin{aligned} & O \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> Count backward by tens. What numbers come next? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| Card 28 Teacher Models | $\begin{aligned} & 65,64,63 \\ & 67,68,69 \\ & 64,62,60 \\ & 56,46,36 \end{aligned}$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |
| $\begin{aligned} & \mathbf{O} \\ & \boldsymbol{\oplus} \\ & \mathbf{~} \end{aligned}$ | Step One: Read the problem <br> Count backward by tens. What numbers come next? $62,52,42,$ $\qquad$ $\qquad$ $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | $\begin{aligned} & 32,22,12 \\ & 41,40,39 \\ & 43,44,45 \\ & 62,52,42 \end{aligned}$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Count backward by tens. What numbers come next? <br> 57, 47, 37, $\qquad$ , | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | $\begin{gathered} 38,39,40 \\ 36,35,34 \\ 27,17,10 \\ 27,17,7 \end{gathered}$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Step One: Read the problem


Mrs. Potter used 10 eggs to make omelets for her children. If each omelet has 2 eggs, how many children does Mrs. Potter have?

## NOW ...

Step Two: Think about and talk about the problem
Step One: Read the problem

## $\circ$ $\stackrel{\circ}{3}$ $\stackrel{3}{3}$

Edie found 8 coins. She gave 2 coins to each person she met. How many people did she meet? $\qquad$

NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem
Karlie used 6 sheets of wrapping paper to wrap gifts for her friends. Each sheet was big enough to wrap 2 gifts. How many gifts did Karlie wrap? $\qquad$

NOW ...
Step Two: Think about and talk about the problem

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> Jerry scores 4 soccer goals. <br> Alma scores 3 soccer goals. <br> Chris scores 5 soccer goals. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| Card 31 Teacher Models | How many soccer goals did they score in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & \mathbf{3} \end{aligned}$ | Step One: Read the problem <br> Lisa was sick for 4 days. Gerald was sick for 3 days. Teresa was sick for 3 days. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How many days were they sick? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Nancy bought 7 Frisbees. Owen bought 4 Frisbees. Polly bought 2 Frisbees. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How many Frisbees did they buy in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |

Student Name:
Step One: Read the problem
Grace gave 32 buttons to Jimmy and 27 buttons to James.

How many buttons did Grace give away in all? $\qquad$
 about the problem
Step One: Read the problem
Howard read 14 pages on
Saturday and 50 pages on Sunday.

How many pages did Howard read total? $\qquad$

NOW ...
Step Two: Think about and talk about the problem
Step One: Read the problem

Mosha earned 42 tickets in August and 51 tickets in September.

How many tickets did she earn altogether? $\qquad$

NOW ...
Step Two: Think about and talk about the problem

Date:

| Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. |
| :--- | :--- |
|  |  |
|  |  |

Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> Carl made 58 bird houses in January and 35 bird houses in February. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| Card 33 Teacher Models | How many more bird houses did he make in January than February? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{U} \\ & \mathbf{B} \end{aligned}$ | Step One: Read the problem <br> Greg received \$45 for his birthday. He spent $\$ 15$ on a new video game. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How much money did Greg have left? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & \hline \end{aligned}$ | Step One: Read the problem <br> A flock of 68 birds were resting in a tree. After an hour, 53 birds flew away. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How many birds were left in the tree? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem |  |  |

Student Name:
Step One: Read the problem


Mrs. Smith has 14 students in her class but she only has 11 desks.

How many more students than desks are there? $\qquad$

## NOW ...

Step Two: Think about and talk about the problem
Step One: Read the problem
There are 24 seats on the roller coaster ride. There are 29 people in line to ride the roller coaster.

How many people will not be able to ride the roller coaster? $\qquad$

## NOW ...

Step Two: Think about and talk about the problem
Step One: Read the problem

The doll costs $\$ 60$. Rachel has $\$ 40$. How much more money does Rachel need to buy the doll? $\qquad$
Card 34 Student Completes Independently

## NOW ...

Step Two: Think about and talk about the problem

Date:

| Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. <br> us |
| :--- | :--- |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: |
| :--- | :--- | :--- |
|  | Cube = 6 flat surfaces |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:
Date:
Use the following template to create extra or replacement cards for the 'I DO - WE DO - YOU DO' intervention.

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. |
| :--- | :--- | :--- | :--- |



# UNIVERSAL SCREENING/BASELINE ASSESSMENT 2nd grade 

Directions: Have the student complete the baseline assessment on this page before beginning the "I DO - WE DO - YOU DO" Math Problem Solving Intervention. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

Step One: Read the problem
Hillary saw 30 caterpillars going up a tree. Bill saw 40 caterpillars crawling on the sidewalk.

How many groups of ten caterpillars did Hillary and Bill see?


Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
|  | Score: | Score: | Sco | Score: ___ Score: |  |

$\qquad$

## Math Problem Solving RTI Progress Monitoring Assessment - 2nd grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#1 (given to student after completing 1 week of the intervention)

| Step One: Read the problem | Step Two: Think about the problem <br> and write HOW you will solve the <br> problem on the lines below: | Step Three: Solve the problem <br> using pictures, words, or numbers. |
| :--- | :--- | :--- | :--- |
| Mr. Rodriguez has 6 bags with |  |  |
| 10 pencils in each bag. He |  |  |
| buys 4 more pencils. |  |  |
|  |  |  |
| How many pencils does Mr. |  |  |
| Rodriguez have in all? |  |  |

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He /she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |

Score: $\qquad$ Score: Score:

## Math Problem Solving RTI Progress Monitoring Assessment - $2^{\text {nd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#2 (given to student after completing 2 weeks of the intervention)
Step One: Read the problem
Barbara baked three cakes
for her children. If each cake
has 5 candles, how many
candles are there in all?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He /she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |

## Math Problem Solving RTI Progress Monitoring Assessment - $2^{\text {nd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#3 (given to student after completing 3 weeks of the intervention)

Step One: Read the problem
Billy did not build any birdhouses in June. In July he built 56 birdhouses. How many birdhouses did he build in all?

What number sentence can you write to solve this problem? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |

## Math Problem Solving RTI Progress Monitoring Assessment - $2^{\text {nd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#4 (given to student after completing 4 weeks of the intervention)

Step One: Read the problem
Jonathon received money for his birthday. He was given $\$ 17$ dollars by his grandmother, $\$ 15$ from his aunt, and $\$ 19$ from his brother.

How much money did he receive in all?


Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

$\qquad$
Math Problem Solving RTI Progress Monitoring Assessment - $2^{\text {nd }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#5 (given to student after completing 5 weeks of the intervention)

Step One: Read the problem
69 children showed up at the city race. 26 children actually ran in the race. How many children did not run in the race?


Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
|  | ore: | Score: | Score: | Score: __ Score: |  |

## Math Problem Solving RTI Progress Monitoring Assessment - $2^{\text {nd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#6 (given to student after completing 6 weeks of the intervention)

Step One: Read the problem
There are 86 doctors at the hospital. 34 of them are women. How many of the doctors are men?


Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
|  | core: | Score: | Score: | Score: | Score: |
| 82 | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $2^{\text {ND }}$ GRADE |

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#7 (given to student after completing 7 weeks of the intervention)

> Step One: Read the problem Elana is on her way to the store to buy juice boxes for her son's baseball team. There are a total of 9 boys on the team. If each boy receives 3 boxes of juice, how many boxes does Elana need to buy in all?

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - $2^{\text {nd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#8 (given to student after completing 8 weeks of the intervention)

## Step One: Read the problem

Tina has a $\$ 20$ dollar bill, a $\$ 5$ dollar bill, four $\$ 1$ dollar bills, 3 quarters, and 7 dimes. How much money does she have in all? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.


## Math Problem Solving RTI Progress Monitoring Assessment - $2^{\text {nd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#9 (given to student after completing 9 weeks of the intervention)

Step One: Read the problem
Ramona the cat measures
12 inches long. Her brother Jay Jay is 14 inches long. Her sister Betty is longer than Ramona but shorter than Jay Jay. How long is Betty?


Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - $2^{\text {nd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#10 (given to student after completing 10 weeks of the intervention)

Step One: Read the problem
Angelica bought 6 pies for a total of $\$ 30$. How much does each pie cost?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |
| 86 | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | 2 ND GRADE |

$\qquad$
Math Problem Solving RTI Progress Monitoring Assessment - $2^{\text {nd }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#11 (given to student after completing 11 weeks of the intervention)

Step One: Read the problem
What is the value of the ' 9 ' in the number 694? $\qquad$
What is the value of the ' 4 ' in the number 694? $\qquad$
What is the value of the ' 6 ' in the number 694? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He /she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
|  | Score: | Score: | Score: | Score: __ Score: |  |

## Math Problem Solving RTI Progress Monitoring Assessment - $2^{\text {nd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#12 (given to student after completing 12 weeks of the intervention)

Step One: Read the problem
Your friend is thinking of
a number. It has a 0 in
the tens place, a 5 in the
hundreds place, and a 4 in
the ones place.
What number is your
friend thinking of?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below: the tens place, a 5 in the hundreds place, and a 4 in the ones place.
What number is your friend thinking of?

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He/she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
|  | re: | Sco | Score: | Score: | Score: |
| 88 | 'I DO - WE DO- yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $2^{\text {ND GRADE }}$ |

## I DO

## WE



## Math Problem Solving <br> Cards - $2^{\text {nd }}$ Grade

Student Name:

| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| H | Marty stacked his baseball cards into 5 stacks. If there are 10 cards in each stack, how many cards does he have in all? $\qquad$ |  |  |
|  |  |  |  |
| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| 3 | Brenda stacked her books into 7 stacks. If there are 10 books in each stack, how many books does she have in all? $\qquad$ |  |  |
|  |  |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. | $\square$ |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Reggie stacked his CDs into 4 stacks. If there are 10 CDs in each stack, how many CDs does he have in all? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:

| $\begin{aligned} & \mathrm{O} \\ & 0 \\ & \mathrm{H} \end{aligned}$ | Step One: Read the problem <br> Jennifer used tens and ones to show the number 57 . How did she show the number? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | 7 tens and 5 ones <br> 5 tens and 7 tens <br> 5 tens and 7 ones <br> 5 ones and 7 ones <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \boldsymbol{~} \end{aligned}$ | Step One: Read the problem <br> Lee used tens and ones to show the number 83 . How did he show the number? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | 3 tens and 8 ones <br> 8 tens and 3 tens <br> 8 tens and 3 ones <br> 8 ones and 3 ones <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & 0 \end{aligned}$ | Step One: Read the problem <br> Trish used tens and ones to show the number 71 . How did she show the number? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | 1 ten and 7 tens <br> 7 ones and 1 ten <br> 7 tens and 1 ten <br> 7 tens and 1 one <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. |
| :--- | :--- | :--- | :--- |
|  | Erin has 39 CDs. About how many | CDs does she have? |  |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. <br> Kandy stuck 4 stickers on every <br> page of her sticker book. If her <br> sticker book has 6 pages total, <br> how many stickers did Kandy stick <br> in all? |
| :--- | :--- | :--- | :--- |

Student Name:
Date:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> Ten frogs like to eat green flies. Three frogs like to eat grasshoppers. Seven frogs like to eat crickets. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | How many fewer frogs like to eat crickets than flies? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & \mathbf{B} \end{aligned}$ | Step One: Read the problem <br> Seven children like pizza. Four children like spaghetti. Two children like hotdogs. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How many fewer children like hotdogs than pizza? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Six students like to jump rope. Six students like to play kick ball. Nine students like to play dodge ball. How many fewer children like to play kick ball than dodge ball? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:

| $0$ | Step One: Read the problem <br> The ice cream man has 5 fudge | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| H | vanilla bars, and 2 orange push- |  |  |
|  | orange push-up, how many items will he have left? $\qquad$ | — |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \boldsymbol{~} \end{aligned}$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
|  | The pet store has 4 dogs, 3 cats, 2 turtles, and 3 hamsters. If they sell 2 dogs and a hamster, how many pets will they have total? |  |  |
|  |  |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 8 \end{aligned}$ | Step One: Read the problem <br> The library has 3 picture books, 7 chapter books, 2 dictionaries, and 3 bibliographies. If Jenny checks out 2 chapter books and 2 bibliographies, how many books will the library have left? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
|  |  |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:
Date:


Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & 0 \\ & H \end{aligned}$ | Eight mechanics are working on cars. Three of the mechanics leave to eat lunch. How many | below: |  |
|  | Write the number sentence for this problem: |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & \mathbf{B} \end{aligned}$ | Step One: Read the problem <br> Five zebras are running. Two of the zebras stop to drink water. How many zebras are still running? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| Card 8 Teacher \& Student Collabora | Write the number sentence for this problem: <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \lambda \end{aligned}$ | Step One: Read the problem <br> Seven students are reading a book. Five students finish their books and leave to get a drink of water. How many students are still | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | Write the number sentence for this problem: <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:


Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> John found 37 tan seashells and 12 white seashells. How many seashells did he find in all? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & \boldsymbol{3} \end{aligned}$ | Step One: Read the problem <br> Naomi sees 13 orange butterflies and 45 yellow butterflies. How many butterflies does she see in all? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Chloe has 38 goldfish and 21 angelfish in her aquarium. How many fish does she have in all? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:

| $0$ | Step One: Read the problem <br> Edgar ate 7 crackers on Thursday. He ate 16 crackers on Friday and 14 on Saturday. |
| :---: | :---: |
|  | How many crackers did Edgar eat in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |
| $\begin{aligned} & 0 \\ & 3 \\ & 3 \end{aligned}$ | Step One: Read the problem <br> Jillian read 5 pages of her book on Monday. She reads 13 pages on Tuesday and another 13 pages on Wednesday. |
|  | How many pages did Jillian read in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |
| $\begin{aligned} & 0 \\ & 0 \\ & 8 \\ & 8 \end{aligned}$ | Step One: Read the problem <br> Polly found 8 pennies in September. She found 12 pennies in October and 17 pennies in November. |
|  | How many pennies did Polly find in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |

Date:

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:


Student Name:

|  | Step One: Read the problem <br> Phil bought 65 chocolate covered <br> cherries for his mother for <br> Mother's Day. She ate 3 of them. <br> How many does she have left? | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. |
| :--- | :--- | :--- | :--- |
|  | uner |  |  |

Student Name:

|  | Step One: Read the problem |
| :--- | :--- |
| H | Sigmund sold 39 donuts in the <br> morning and 19 donuts in the <br> afternoon. How many more donuts <br> did he sell in the morning than in <br> the afternoon? | about the problem.

Date:

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:
Step One: Read the problem


Will doesn't weigh as much as Toby. Trisha weighs more than Will but less than Toby. Of the three children, who weighs the least? $\qquad$ Who weighs the most?

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
Tina is tall but isn't as tall as
Simon. Ray is shorter than Simon but is taller than Tina. Of the three children, who is the shortest? $\qquad$
Who is the tallest? $\qquad$

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem
Amanda can run fast but she can't run as fast as Trixie. Kay can't run as fast as Trixie either but is faster than Amanda. Of the three runners, who is the fastest?

Who is the slowest? $\qquad$

NOW ..
Step Two: Think about and talk about the problem.

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. <br> Marilyn planted 5 marigolds. <br> Denny planted 7 begonias. <br> Richard planted 8 tulips. | How many flowers did they plant <br> in all? |
| :--- | :--- | :--- | :--- | :--- |

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

| $\begin{aligned} & \mathrm{O} \\ & 0 \\ & \mathrm{H} \end{aligned}$ | Step One: Read the problem <br> Seth studied for 25 minutes. Helen studied for 35 minutes. Roger studied for 13 minutes. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | How many minutes did Seth, Helen, and Roger study in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & \mathbf{3} \end{aligned}$ | Step One: Read the problem <br> Kathy ran for 37 minutes. Tracy ran for 46 minutes. Greg ran for 12 minutes. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How many minutes did Kathy, Tracy, and Greg run in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Step One: Read the problem <br> Mr. Cramer drove for 58 minutes. <br> Mr. Rogers drove for 41 minutes. <br> Mrs. Pauls drove for 15 minutes. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How many minutes did Mr. Cramer, Mr. Rogers, and Mrs. Pauls drive in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:
Date:

| $0$ | Step One: Read the problem <br> Hilda cut out 54 circles. She threw 3 of the circles away in the classroom and 4 more in the bathroom. How many circles did Hilda have left? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & \underset{3}{2} \end{aligned}$ | Step One: Read the problem <br> Dorothy bought 35 tickets at the fair. She lost 4 tickets in the bathroom and 2 more tickets while | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 2 \\ & 0 \end{aligned}$ | Step One: Read the problem <br> Kira found 67 seashells at the beach. She dropped 5 seashells next to the coconut tree and 4 more seashells next to the palm | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | Kira have left? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:


Student Name:
Date:


Student Name:

| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| H | Ti has a $\$ 10$ dollar bill, a $\$ 5$ dollar bill, three $\$ 1$ dollar bills, 2 quarters, and 2 dimes. How much money does she have in all? |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & \mathbf{B} \end{aligned}$ | Step One: Read the problem <br> Maya has a $\$ 5$ dollar bill, two $\$ 1$ dollar bills, a quarter, and a dime. How much money does she have in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
|  |  |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Elaine has a $\$ 10$ dollar bill, three \$1 dollar bills, two quarters, and three dimes. How much money | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:
Date:


Student Name:


Student Name:
Date:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. <br> Sandy the dog weighs 18 pounds. <br> Buffy the cat weighs 16 pounds. <br> Lionel the duck weighs more than <br> Buffy but less than Sandy. How <br> much does Lionel weigh? |
| :--- | :--- | :--- | :--- |

Student Name:

| $0$ | Step One: Read the problem <br> Mrs. Davis is setting the table. | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | 80 feet <br> 8 feet <br> 8 miles <br> 8 inches <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 3 \\ & B \end{aligned}$ | Step One: Read the problem <br> Paul has a toy box in his bedroom. About how long is his toy box? <br> 30 feet | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | 3 feet <br> 3 miles <br> 3 inches <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
|  | Step One: Read the problem <br> Jessie sees a picture on the wall at the museum. About how tall is the picture? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | 2 feet <br> 2 inches <br> 2 miles <br> 20 feet <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:
Step One: Read the problem


The temperature inside is 23 degrees warmer than the temperature outside. If the temperature outside is 47 degrees, what is the temperature inside? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
The temperature outside is 43
WE degrees colder than the temperature inside. If the temperature inside is 68 degrees, what is the temperature outside?

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
The temperature in Georgia is 53 degrees warmer than in Colorado. If the temperature is 95 degrees
in Georgia, what is the temperature in Colorado?

Card 29 Student Completes $\qquad$

NOW ...
Step Two: Think about and talk about the problem.

Date:

|  | Step One: Read the problem <br> The temperature inside is 23 degrees warmer than the temperature outside. If the temperature outside is 47 degrees, what is the temperature inside? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{O} \\ & \mathrm{w} \\ & 3 \end{aligned}$ | Step One: Read the problem <br> The temperature outside is 43 degrees colder than the temperature inside. If the temperature inside is 68 degrees, what is the temperature outside? <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| $\begin{aligned} & 0 \\ & 0 \\ & 2 \\ & 8 \end{aligned}$ | Step One: Read the problem <br> The temperature in Georgia is 53 degrees warmer than in Colorado. If the temperature is 95 degrees in Georgia, what is the temperature in Colorado? <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. <br> Angie bought 5 cakes for a total <br> of \$20. How much does each cake <br> cost? |
| :--- | :--- | :--- | :--- |

Student Name:

|  | Step One: Read the problem |
| :--- | :--- |
| There are 100 marbles in a bag. If |  |
| Maureen buys 4 bags, how many |  |
| marbles will she have in all? |  | about the problem.

Date:

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> Which number sentence equals to a number greater than 421? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| Card 33 Teacher Models | $\begin{aligned} & 35+125= \\ & 247+85= \\ & 76+401= \\ & 480-400= \end{aligned}$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & \mathbf{O} \\ & \boldsymbol{\oplus} \\ & \mathbf{~} \end{aligned}$ | Step One: Read the problem <br> Which number sentence equals to a number greater than 143? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | $\begin{array}{r} 132+4= \\ 67+97= \\ 456-400= \end{array}$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Which number sentence equals to a number greater than 362? $35+125=$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | $\begin{array}{r} 247+85= \\ 76+401= \\ 480-400= \end{array}$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:

| $0$ | Step One: Read the problem <br> Count by threes. Start with the number 621. What will the next four numbers be? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 3 \\ & 3 \end{aligned}$ | Step One: Read the problem <br> Count by fives. Start with the number 734. What will the next four numbers be? <br> 734, $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| Card 34 Teacher \& Student Collaborate | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
|  | Step One: Read the problem <br> Count by fours. Start with the number 237. What will the next four numbers be? <br> 237, $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| Card 34 Student Completes Independently | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. <br> Your father is thinking of a <br> number. It has a 4 in the tens <br> place, a 8 in the hundreds place, <br> and a 0 in the ones place. <br> What number is your father <br> thinking of? |
| :--- | :--- | :--- | :--- |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines | Step Four: Solve the problem <br> using pictures, words, or numbers. <br> below: |
| :--- | :--- | :--- | :--- |
|  | Harry watched 576 minutes of <br> T.V. in July and 428 minutes in <br> August. How many minutes of T.V. <br> did he watch in all? | uner |  |

I DO WE DO YOU DO

THIRD GRADE

UNIVERSAL SCREENING/BASELINE ASSESSMENT $3^{\text {rd }}$ grade
Directions: Have the student complete the baseline assessment on this page before beginning the "I DO - WE DO - YOU DO" Math Problem Solving Intervention. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

Step One: Read the problem
(base-ten blocks may be used for this problem)
Jason used base-ten blocks to model the number 736. If he takes away 1 tens block, what number will he have?
(Start again with the number 736) If Jason takes away 1 hundreds block, what number will he have?
(Start again with the number 736) If Jaime takes away 1 one block, what number will she have?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. $\mathrm{He} /$ she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did no $\dagger$ notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
|  | Score: | Score: | Score: | Score: | Score: |

Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#1 (given to student after completing 1 week of the intervention)
Step One: Read the problem
What is the least possible number you can write using the digits 8, 4, 9, 2? (Use each digit only once)

What is the greatest possible number you can write using the digits $8,4,9,2$ ? (Use each digit only once) $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| ore: |  | Score: | Score: | Score: ___ Score: |  |

## Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#2 (given to student after completing 2 weeks of the intervention)

## Step One: Read the problem

At the city warehouse a total of 602 employees ride the train to work. Another 194 employees drive a car to work. Additionally, a total of 86 employees ride the city bus to work. How many employees work at the city warehouse?
What is that number rounded to the nearest hundred?

What is that number rounded to the nearest ten?


Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | S | Score: | Score: | Score: |
| 130 | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  |  |

$\qquad$
Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#3 (given to student after completing 3 weeks of the intervention)

| Step One: Read the problem <br> Chase and Josh entered a hotdog <br> eating contest. Chase ate a total of <br> 17 hotdogs. Josh ate 5 hotdogs <br> fewer than Chase. | Step Two: Think about the problem <br> and write HOW you will solve the <br> problem on the lines below: |
| :--- | :--- | :--- |

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
|  | core: | Score: | Score: | Score: __ Score: |  |

## Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#4 (given to student after completing 4 weeks of the intervention)

## Step One: Read the problem

How many half dollars are there in 7 dollars?

How many quarters are there in 7 dollars? $\qquad$
How many dimes are there in 7 dollars?
How many nickels are there in 7 dollars?
How many pennies are there in 7 dollars?


Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He /she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| 132 | Score: | Score: | Score: | Score: | Score: |
|  | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $3^{R D}$ GRADE |

$\qquad$
Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#5 (given to student after completing 5 weeks of the intervention)

Step One: Read the problem
Quan has 2 strawberry patches with 5 rows of 7 strawberry plants each. How many strawberry plants does he have in all? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:
problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
|  | Score: | Score: | Scor | Score: __ Score: |  |

Student Name:
Date:

## Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#6 (given to student after completing 6 weeks of the intervention)

Step One: Read the problem

There are 54 pine trees in 6 equal rows. How many pine trees are in each row? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:


Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| 134 | Score: | Score: | Score: | Score: | Score: |
|  | 'I DO - WE DO - y U DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $3^{R D}$ GRADE |

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Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#7 (given to student after completing 7 weeks of the intervention)

Step One: Read the problem
Sung Li bought breakfast for herself and her daughter. She paid with a $\$ 20$ bill. Her change was $\$ 4.87$. How much did the breakfast cost? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#8 (given to student after completing 8 weeks of the intervention)

Step One: Read the problem

Six men went to golf camp the first week of April. There were seven men at camp the second week and two times that many in the third week. How many men went to golf camp altogether? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| 136 | Score: | Score: | Score: | Score: | Score: |
|  | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $3^{R D}$ GRADE |

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Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#9 (given to student after completing 9 weeks of the intervention)

Step One: Read the problem
Gretel wrote this number pattern: $741,753,765,777,789,801$

What rule did she use?

What would be the next two numbers in the pattern?


Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#10 (given to student after completing 10 weeks of the intervention)

## Step One: Read the problem

Mandy divided a piece of yarn into 15 equal parts. She used 7 parts to make ornaments and 4 parts to make bracelets.

What fraction of the yarn did she use? $\qquad$

What fraction of the yarn did she not use? $\qquad$

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He /she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| 138 | Score: | Score: | Score: | Score: | Score: |
|  | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $3^{R D}$ GRADE |

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Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#11 (given to student after completing 11 weeks of the intervention)

Step One: Read the problem
Ingrid finished watching T.V. at 5:30 p.m. She watched T.V. for 30 minutes. She ate dinner afterwards. Ingrid came home from soccer practice an hour before she started watching T.V. What time did she get home from soccer practice?


Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - $3^{\text {rd }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#12 (given to student after completing 12 weeks of the intervention)

Step One: Read the problem
What number is 1 less than 34,012 ?
What number is 10 more than
34,012? $\qquad$
What number is 100 less than 34,012?
What number is 1000 more than 34,012? $\qquad$
What number is 10,000 less than 34,012? $\qquad$

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: $\qquad$ <br> toring Assessment | Score: |
| 40 | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  |  |

## I DO



# Math Problem Solving <br> Cards - $3^{\text {rd }}$ Grade 

Student Name:


## Student Name:

| $0$ | Step One: Read the problem <br> (base-ten blocks must be used for these cards) <br> Jaime used base-ten blocks to model the number 584. If she takes away 1 tens block, what number will she have? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | (Start again with the number 584) If Jaime takes away 1 hundreds block, what number will she have? $\qquad$ <br> (Start again with the number 584) If Jaime takes away 1 one block, what number will she have? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 4 \\ & 8 \end{aligned}$ | Step One: Read the problem <br> Richard used base-ten blocks to model the number 714. If he takes away 1 tens block, what number will he have? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | (Start again with the number 714) If Richard takes away 1 hundreds block, what number will he have? $\qquad$ <br> (Start again with the number 714) If Richard takes away 1 one block, what number will he have? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
|  | Step One: Read the problem <br> Jenny used base-ten blocks to model the number 329. If she takes away 1 tens block, what number will she have? <br> (Start again with the number 329) <br> If Jenny takes away 1 hundreds block, what number will she have? $\qquad$ <br> (Start again with the number 329) If Jenny takes away 1 one block, what number will she have? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |

Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> What is the least possible number you can write using the digits <br> 5, 2, 7, 1? (Use each digit only once) | Step Three: Write HOW you will solve the problem on the lines below: |
| :---: | :---: | :---: |
|  | What is the greatest possible number you can write using the digits 5, 2, 7, 1? (Use each digit only once) $\qquad$ |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \amalg \\ & B \end{aligned}$ | Step One: Read the problem <br> What is the least possible number you can write using the digits <br> 4, 9, 8, 3? (Use each digit only once) | Step Three: Write HOW you will solve the problem on the lines below: |
|  | What is the greatest possible number you can write using the digits 4, 9, 8, 3? (Use each digit only once) $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |
| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: |
| $\bar{\gamma}$ | What is the least possible number you can write using the digits 6, 3, 1, 8? (Use each digit only once) |  |
|  | What is the greatest possible number you can write using the digits $6,3,1,8$ ? (Use each digit only once) $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

## Student Name:

| $0$ | Step One: Read the problem (Use a place-value chart to illustrate) <br> Write the following 4 numbers in standard form: <br> Fifty-six thousand, two hundred thirty-one: $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ |
| :---: | :---: | :---: |
|  | Fifty thousand, thirty-one: |  |
|  | Fifty-six thousand, three hundred twelve: $\qquad$ <br> Fifty-three thousand, nineteen: |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |
|  | Step One: Read the problem <br> Write the following 4 numbers in standard form: | Step Three: Write HOW you will solve the problem on the lines below: |
|  | Ninety-two thousand, 4 hundred, eighteen: $\qquad$ |  |
|  | Ninety thousand eight : |  |
|  | Nine hundred fifteen: |  |
|  | Ninety-four thousand, two hundred eighty-seven: $\qquad$ |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |
|  | Step One: Read the problem <br> Write the following 4 numbers in standard form: | Step Three: Write HOW you will solve the problem on the lines below: |
| $>$ | Forty-seven thousand, three hundred fifty-nine: $\qquad$ |  |
|  | Forty-seven thousand, fifty-nine : |  |
|  | Forty thousand, seven hundred: |  |
|  | Forty thousand, seven: |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Step One: Read the problem
What two hundreds is 439 between? $\qquad$ What two tens is 39 between?

Round the number 439 to the nearest hundred. What number do you have?
Round the number 439 to the nearest ten. What number do you have? $\qquad$
NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
What two hundreds is 751 between? $\qquad$
What two tens is 51 between?
$\qquad$
Round the number 751 to the nearest hundred. What number do you have?
Round the number 751 to the nearest ten. What number do you have? $\qquad$
NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
What two hundreds is 389 between? $\qquad$ -
What two tens is 89 between?

Round the number 389 to the Card 5 Student Completes nearest hundred. What number do you have? $\qquad$
Round the number 389 to the nearest ten. What number do you have? $\qquad$
NOW ...
Step Two: Think about and talk about the problem.

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

## Student Name:



Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Step One: Read the problem
Randi had collected 23 stamps by the time she was five years old. For the next four years she collected 18 stamps per year.

How many stamps does Randi now have?

How old is Randi now? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
Marty could play fourteen songs on the piano by the time he was seven years old. For the next five years he learned thirteen songs per year.

How many songs can Marty now play? $\qquad$ How old is Marty now? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem Roxana could type 21 words per minute by the time she was fifteen. Over the next five years she increased the number of words she could type in one minute by 15 words per year.
How many words per minute can
Roxana type now? $\qquad$
How old is Roxana now? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| H | Bella and Rosie went fishing for two days. Bella caught a total of 27 fish. Rosie caught 9 fish fewer than Bella. |  |  |
| Card 8 Teacher Models | How many fish did they catch in all? $\qquad$ |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\bigcirc$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| Ш | Heather and Regina went to the mall to shop for shoes. Heather spent \$68. Regina spent $\$ 27$ more than Heather. |  |  |
|  | How much money did they both spend in all? $\qquad$ |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Gerald and Glenn sold hotdogs at the baseball game. Gerald sold 63 hot dogs. Glen sold 12 more hotdogs then Gerald. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How many hotdogs did they sell in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:
Step One: Read the problem
How many half dollars are there in 9 dollars?

How many quarters are there in 9 dollars?
How many dimes are there in 9 dollars?
How many nickels are there in 9 dollars?
How many pennies are there in 9 dollars? $\qquad$
NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
How many half dollars are there in 6 dollars?
How many quarters are there in 6 dollars?
How many dimes are there in 6 dollars? $\qquad$
How many nickels are there in 6 dollars? $\qquad$
How many pennies are there in 6 dollars?

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
How many half dollars are there in 8 dollars?
How many quarters are there in 8 dollars?
How many dimes are there in 8 dollars? $\qquad$
11 Student Completes
Independently
How many nickels are there in 8 dollars? $\qquad$
How many pennies are there in 8 dollars? $\qquad$ NOW ...
Step Two: Think about and talk about the problem.

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

|  | Step One: Read the problem (a demonstration clock is needed for this card) | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | Wally sold 8 boxes of cookies at the concession stand. Each box contained 5 cookies. How many cookies did Wally sell in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 4 \\ & 8 \end{aligned}$ | Step One: Read the problem <br> Warren has 6 stacks of postcards that he collected on summer vacation. If each stack has 4 | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| Card 12 Teacher \& Student Collaborate | in all? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
|  | Step One: Read the problem <br> Rico bought 3 boxes of pencils. If each box has 10 pencils, how many did he buy in all? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:
Step One: Read the problem
Lynn can blow up 8 balloons in 10 minutes. Barry can blow up twice as many balloons as Lynn. Linus can blow up twice as many balloons as Barry.

How many balloons can Barry blow up in 10 minutes?

How many balloons can Linus blow up in 10 minutes?

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
Forrest played 2 card games in an hour. Brenda played 3 times as many card games as Forrest. Hillary played 3 times as many card games as Brenda

How many card games did Brenda play in an hour?

How many card games did Hillary play in an hour?

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem
Jackson spent \$2 at the carnival.
Ellie spent four times as much as Jackson. Nathan spent four times as much as Ellie.

How much money did Ellie spend at the carnival? $\qquad$
How much money did Nathan spend at the carnival? $\qquad$
NOW ...
Step Two: Think about and talk about the problem.

Date:


Student Name:

| $0$ | Step One: Read the problem <br> Kanisha's birthday is July $14^{\text {th }}$. <br> Halle's birthday is 4 days before <br> Kanisha's but 7 days after Lisa's. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | When is Halle's birthday? |  |  |
|  | When is Lisa's birthday? |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 3 \\ & 8 \end{aligned}$ | Step One: Read the problem <br> Pedro's surgery is scheduled for March $29^{\text {th }}$. Vanessa's surgery is scheduled 8 days before Pedro's but 12 days after Xavier's. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | What is Vanessa's surgery date? |  |  |
|  | What is Xavier's surgery date? <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
|  | Step One: Read the problem <br> Fabio's concert is on December $18^{\text {th }}$. Corey's concert is 5 days before Fabio's but 2 days after Noah's. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| $\begin{gathered} \text { Card } 14 \text { Student Completes } \\ \text { Independently } \end{gathered}$ | When is Corey's concert? |  |  |
|  | When is Noah's concert? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: |
| :--- | :--- | :--- |
|  | Omar has 2 vegetable gardens <br> with 4 rows of 6 tomato plants <br> each. How many tomato plants <br> does he have in all? | - |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| H | Three sisters want to share 15 crackers equally. How many crackers will each sister get? |  |  |
| $n$ 00 0 0 0 0 $\vdots$ 0 0 0 0 0 0 0 0 | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 3 \\ & 3 \end{aligned}$ | Step One: Read the problem <br> Five teachers need to create their class list of students. There are a | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | they are divided equally? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
|  | Step One: Read the problem <br> Four friends want to divide a stack of baseball cards equally among themselves. If there are a total of 24 cards, how many does | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. |
| :--- | :--- | :--- | :--- |

Student Name:

| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| $H$ | Mr. Kelly was born in 1967. | $\qquad$ |  |
|  | How old was he in 1995? $\qquad$ <br> How old was he in 2000? $\qquad$ |  |  |
|  |  |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. | $-$ |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \mathbf{~} \end{aligned}$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
|  | Cheyenne was born in 2004. |  |  |
|  | How old was she in 2010? |  |  |
|  | How old will she be in 2020? |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 8 \end{aligned}$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
|  | Mrs. Alvarez was born in 1934. |  |  |
|  | How old was she in 1963? |  |  |
|  | How old was she in 2000? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
|  |  |  |  |
|  |  |  |  |

Student Name:
Step One: Read the problem 0
0
$H$

Sylvester bought a package of crackers. He gave his cousin 5 crackers. He ate 18 crackers. There are 17 crackers left. How many crackers were in the package he bought? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem

Miss Dobbs ordered a box of books for her classroom. She gave 8 books away to Mr. Tollison. She put 25 books on her classroom bookshelf. There are still 17 books left in the box. How many books were in the box she bought?
$\qquad$

NOW ..
Step Two: Think about and talk about the problem.
Step One: Read the problem
Alison received a bag of peanuts from her Uncle Wayne. She gave her sister 15 peanuts and she ate 15 peanuts herself. There are still 27 peanuts left in the bag. How many peanuts were in the bag her Uncle Wayne gave her? $\qquad$

## NOW .

Step Two: Think about and talk about the problem.

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:


Student Name:

| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| H | Hector is 6 feet tall. Sigmund is 76 inches tall. | $\qquad$ |  |
|  | Who is the tallest? |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. | $\qquad$ |  |
| $\begin{aligned} & \mathbf{O} \\ & \boldsymbol{\oplus} \\ & \mathbf{B} \end{aligned}$ | Step One: Read the problem <br> Wanda hopped 4 feet 4 inches. Shirley hopped 1 yard and 8 inches. | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
|  | Whose hop was the longest? |  |  |
| 뭉 | NOW ... <br> Step Two: Think about and talk about the problem. | $\qquad$ |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 2 \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Donavan drew a line that measured 4 feet 2 inches. <br> Craig drew a line that measured 1 yard 11 inches. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | Whose line was the longest? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. | $\qquad$ |  |

Student Name:
Step One: Read the problem
Use a place value chart to help illustrate this card.

What is the value of the 7 in the number 27, 905?
What is the value of the 2 in the number 27, 905 ?
What is the value of the 5 in the number 27, 905?
What is the value of the 9 in the number 27, 905? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem

What is the value of the 6 in the number 93,162 ?
What is the value of the 2 in the number 93,162 ?
What is the value of the 9 in the number 93,162 ? $\qquad$
What is the value of the 3 in the number 93,162 ? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem

What is the value of the 4 in the number 58,743?
What is the value of the 3 in the number 58,743?
What is the value of the 8 in the number 58,743? $\qquad$ What is the value of the 7 in the number 58,743 ? $\qquad$

## NOW ..

Step Two: Think about and talk about the problem.

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. <br> Seven students attended chess <br> club during the first week of <br> school. There were eight students <br> the second week and double that <br> in the third. How many students <br> attended in all? |
| :--- | :--- | :--- | :--- |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: |
| :--- | :--- | :--- |
|  | Ansley drew a rectangle that was <br> 7 inches long and 3 inches wide. <br> What is the perimeter of her <br> rectangle? | Ansley then drew a square whose |
| sides are 4 inches each. What is |  |  |
| the perimeter of her square? |  |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: |
| :--- | :--- | :--- |
|  | What rule did she use? |  |
| 392, 403, 414, 425, 436, 447 |  |  |
|  |  |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

| $\begin{aligned} & \mathrm{O} \\ & \mathbf{H} \end{aligned}$ | Step One: Read the problem <br> Stella sliced a pizza into 8 equal parts. She and her friends ate 7 slices. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | What fraction was eaten? $\qquad$ <br> What fraction was not eaten? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \boldsymbol{\Psi} \end{aligned}$ | Step One: Read the problem <br> Justine cut a board into 6 equal parts. She and her brother used 5 pieces to build a birdhouse. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | What fraction was used? $\qquad$ <br> What fraction was not used? <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \lambda \end{aligned}$ | Step One: Read the problem <br> Tammy cut a sub sandwich in 5 equal parts. She and her cousins ate 3 parts. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | What fraction was eaten? $\qquad$ <br> What fraction was not eaten? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:
Step One: Read the problem
Mali divided a rope into 10 equal parts. She used 3 parts to tie up old magazines and 6 parts to make jump ropes.

What fraction of the rope did she use?

What fraction of the rope did she not use?

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
Marvin divided a red ribbon into 9 equal parts. He used 7 parts for bows on the Christmas tree and 2 parts to make banners.

What fraction of the board did he use? $\qquad$

What fraction of the board did he not use? $\qquad$
NOW ...
Step Two: Think about and talk about the problem.

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:


Student Name:

| $0$ | Step One: Read the problem <br> A train carries 327 people on each one-way trip from Seattle to Los Angeles. How many people will travel on 4 one-way trips? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 4 \\ & 3 \end{aligned}$ | Step One: Read the problem <br> An airplane carries 189 people on each one-way trip from New York to Denver. How many people will travel on 5 one-way trips? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| Card 32 Teacher \& Student Collaborate | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
|  | Step One: Read the problem <br> A bus carries 52 people on each one-way trip from Atlanta to Chattanooga. How many people will travel on 8 one-way trips? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| $\begin{gathered} \text { Card } 32 \text { Student Completes } \\ \text { Independently } \end{gathered}$ | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:


Student Name:


Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> What number is 1 less than 67,507? $\qquad$ <br> What number is 10 more than 67,507? $\qquad$ <br> What number is 100 less than 67,507? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ |
| :---: | :---: | :---: |
| Card 35 Teacher Models | What number is 1000 more than 67,507? $\qquad$ <br> What number is 10,000 less than 67,507? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \boldsymbol{\Psi} \end{aligned}$ | Step One: Read the problem <br> What number is 1 more than 80,129? $\qquad$ <br> What number is 10 less than 80,129? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: |
|  | What number is 100 more than 80,129? $\qquad$ <br> What number is 1000 less than 80,129? $\qquad$ <br> What number is 10,000 more than 80,129? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 2 \\ & \lambda \end{aligned}$ | Step One: Read the problem <br> What number is 1 more than 45,041? $\qquad$ <br> What number is 10 more than 45,041? $\qquad$ <br> What number is 100 less than | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ |
|  | 45,041? $\qquad$ <br> What number is 1000 less than 45,041? $\qquad$ <br> What number is 10,000 more than 45,041? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

|  | Step One: Read the problem <br> Frank, Ralph, Olivia, and Brent are <br> standing in line at the water <br> fountain. Ralph is behind Olivia but <br> is in front of Brent. Frank is not <br> second or third. <br> Solve the problem on the lines <br> below: |
| :--- | :--- | :--- |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.


# UNIVERSAL SCREENING/BASELINE ASSESSMENT $4^{\text {th }}$ grade 

Directions: Have the student complete the baseline assessment on this page before beginning the "I DO - WE DO - YOU DO" Math Problem Solving Intervention. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

Step One: Read the problem
Tonya spent thirteen dollars fortyfive cents for a pair of running shoes, four dollars seven cents for two pairs of socks, and one dollar eighty-one cents for a soda.

How much did Tonya spend?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:
$\qquad$

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He/she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |
| 180 | - WE DO - YOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $4^{\text {TH }}$ GRADE |

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## Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#1 (given to student after completing 1 week of the intervention)

| Step One: Read the problem | Step Two: Think about the problem <br> and write HOW you will solve the <br> problem on the lines below: |
| :--- | :--- |
| Ernie bought a box of candy for <br> $\$ 4.02$. He gave the cashier 2 half <br> dollars, 6 quarters, 14 dimes, 9 <br> nickels, and 8 pennies. |  |

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
|  | Score: | Score: | Scor | Score: ___ Score: |  |

## Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#2 (given to student after completing 2 weeks of the intervention)
Step One: Read the problem
What number is 7 tens more than 81,302?
What number is 5 hundred more than 81,302?
What number is 6 thousand more than 81,302 ?
What number is 10 thousand more than 81,302 ? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

$\qquad$
Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#3 (given to student after completing 3 weeks of the intervention)

| Step One: Read the problem | Step Two: Think about the problem <br> and write HOW you will solve the <br> problem on the lines below: |
| :--- | :--- |
| Shawanda is taking a bus to visit her <br> grandmother 2,501 miles away in <br> California. She traveled 832 miles <br> the first day and 870 miles the <br> second day. How many miles does <br> she still have left to travel? |  |

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He/she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| $4^{\text {TH }}$ GRADE | Score: |  |  | Score: | Score: |
|  | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $t$ 183 |

## Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#4 (given to student after completing 4 weeks of the intervention)

Step One: Read the problem
What rule did Penny follow to get the results in the table below?

| Input | 5 | 7 | 9 | 11 |
| :--- | :---: | :---: | :---: | :---: |
| Output | 35 | 49 | 63 | 77 |

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:


Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| 184 | Score: | Score: | Score: | Score: $\qquad$ <br> ing Assessment | Score: |
|  | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $4^{\text {TH }}$ GRADE |

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Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#5 (given to student after completing 5 weeks of the intervention)

Step One: Read the problem
Loretta goes to the circus with her younger cousin. She buys 2 tickets for $\$ 6.25$ each. She also buys cotton candy for $\$ 2.50$ and a drink for $\$ 3.50$. She has $\$ 1.50$ left over. How much money did she have before going to the circus?


Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: Score: |  |
| $4^{T H}$ GRADE | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | t 185 |

## Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#6 (given to student after completing 6 weeks of the intervention)

Step One: Read the problem
Brianna planted 3 separate vegetable gardens. In her first garden she has an array of 6 rows by 2 rows of peppers. In her second garden she has an array of 8 rows by 4 rows of cabbages, and in her third garden she has an array of 3 rows by 9 rows of squash. How many cabbages does Brianna have? $\qquad$

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He /she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: $\qquad$ <br> ing Assessment | Score: $\qquad$$4^{T H} \text { GRADE }$ |
| 186 | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  |  |

$\qquad$
Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#7 (given to student after completing 7 weeks of the intervention)

| Step One: Read the problem | Step Two: Think about the problem <br> and write HOW you will solve the <br> problem on the lines below: |
| :--- | :--- | :--- |
| Frederica is saving money to buy a <br> new kitchen table. She gets $\$ 25$ for <br> cleaning Mrs. Jackson's house and <br> $\$ 30$ to clean Mr. Paul's house. If <br> she cleans Mrs. Jackson's house 8 <br> times and Mr. Paul's house 5 times, <br> how much money will she have? | $\square$ |

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.


## Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#8 (given to student after completing 8 weeks of the intervention)

Step One: Read the problem

Ty brings 89 pieces of candy to school to share with his 23 classmates. If each classmate gets the same number of pieces, how many pieces will be left over?


Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: $\qquad$ <br> Assessment | Score: |
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$\qquad$
Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#9 (given to student after completing 9 weeks of the intervention)

Step One: Read the problem
I am a 3-digit even number. My tens digit is two less than my hundreds digit and five less than my ones digit. The sum of my digits is 16 . What number am I? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: Score: |  |
| $4^{T H}$ GRADE | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | t 189 |

## Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#10 (given to student after completing 10 weeks of the intervention)
Step One: Read the problem

Jasmine bought $6 \frac{3}{8}$ gallons of blue paint and $4 \frac{2}{8}$ gallons of yellow paint. How much paint did she buy in all? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:


Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.


## Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#11 (given to student after completing 11 weeks of the intervention)

## Step One: Read the problem

 Wanda weighed 5 newborn puppies. The black puppy weighed 1.86 pounds, the white puppy weighed 1.68 pounds, the brown puppy weighed 1.52 pounds, the spotted puppy weighed 1.258 pounds, and the tan puppy weighed 1.528 pounds.Which puppy weighed the most?
Which puppy weighed the least?


Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He /she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |

## Math Problem Solving RTI Progress Monitoring Assessment - $4^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#12 (given to student after completing 12 weeks of the intervention)
Step One: Read the problem

Crystal ran 6.4 miles and Manny ran twice that far. How far did the two run altogether? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:


Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.


## I DO



# Math Problem Solving <br> Cards - $4^{\text {th }}$ Grade 

Student Name:

Step One: Read the problem
Nancy spent nine dollars thirtyfive cents for a T-shirt, three dollars sixty-seven cents for a pair of shorts, and one dollar fifty-eight cents for an ice cream. How much did Nancy spend?

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem

## WEDO

Joyce bought 3 books at the bookstore. The first book cost five dollars sixty cents. The second book cost twelve dollars ninety-four cents. The third book cost two dollars ninety-eight cents. How much did Joyce spend for books? $\qquad$

## NOW ..

Step Two: Think about and talk about the problem.
Step One: Read the problem
Able went to the zoo. His ticket cost ten dollars fifty cents. He also bought a T-shirt for eight dollars ten cents and a drink for one dollar two cents.
How much did Able spend?

NOW ...
Step Two: Think about and talk about the problem.

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

## Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> Solve the problem on the lines <br> below: |
| :--- | :--- | :--- |
|  | Tina's uncle is thinking of a <br> number. The number has 3 digits <br> and has a sum of 14. One of the <br> digits is greater than 8 but the <br> other 2 digits are less than 5. The <br> tens digit is less than 3 but more <br> than 1. The ones digit is one more <br> than the tens digit. | - |
| What number is Tina's uncle |  |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

Step One: Read the problem

Egbert bought a CD for $\$ 5.38$. He gave the cashier 3 half dollars, 15 quarters, 7 dimes, 2 nickels, and 6 pennies.
How much change will he get back? $\qquad$

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem

Hassan bought a burger for $\$ 2.74$.
He gave the cashier 7 quarters, 9 dimes, 1 nickel, and 14 pennies. How much change will he get back? $\qquad$ Teacher \& S
Collaborate

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem
Lucy bought a movie ticket for $\$ 6.15$. She gave the cashier 5 half dollars, 10 quarters, 8 dimes, 17 nickels, and 20 pennies.
How much change will she get back? $\qquad$ 3 Student Comp
Independently

NOW ...
Step Two: Think about and talk about the problem.

Date:

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
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Step Three: Write HOW you will solve the problem on the lines below:
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$\qquad$
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

Step One: Read the problem
On Monday 941 people went to the amusement park. On Tuesday 692 people went and on Wednesday 712 people went.

About how many people went to the amusement park those three days? $\qquad$

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem
In July, 758 people went to the aquarium. Another 992 people went in August and 605 people went in September.

About how many people went to the aquarium during those three months? $\qquad$

## NOW ..

Step Two: Think about and talk about the problem.
Step One: Read the problem
During the first week of winter a total of 470 people went ice skating. Another 389 people went the second week and 531 people went the third week.

About how many people went ice skating during those three weeks?
$\qquad$

NOW ...
Step Two: Think about and talk about the problem.

Date:

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name: $\qquad$
Step One: Read the problem
The Golson family is driving a total of 1,548 miles on vacation. The first day they drive 461 miles, and the second day they drive 498 miles. How many miles do they

## NOW ...

Step Two: Think about and talk about the problem.

## WE DO

Step One: Read the problem
Kevin is learning to fly an airplane.
He has to fly a total of 3,602 miles to get his license. The first week he flew 961 miles and the second week he flew 759 miles. How many miles does he still have left to fly? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
Porsha is traveling 2,784 miles via train. The first day she traveled 814 miles and the second day she traveled 701 miles. How many miles does she still have to travel?

Card 9 Student Completes $\qquad$

NOW ...

Step Two: Think about and talk about the problem.

Date:
$\left.\begin{array}{l|l}\begin{array}{l}\text { Step Three: Write HOW you will } \\ \text { solve the problem on the lines } \\ \text { below: }\end{array} & \begin{array}{l}\text { Step Four: Solve the problem } \\ \text { using pictures, words, or numbers. }\end{array} \\ \hline= & \end{array}\right]$

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name: $\qquad$
Step One: Read the problem

What rule did Harry follow to get the results in the table below?

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> What rule did Harry follow to get the results in the table below? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Input | 6 | 7 | 8 | 9 |
|  | Output | 30 | 35 | 40 | 45 |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |  |  |
| $\begin{aligned} & O \\ & \mathbf{U} \\ & \mathbf{B} \end{aligned}$ | Step On <br> What rul get the | What rule did Ramona follow to get the results in the table below? |  |  |  |
|  | Input | 8 | 10 | 12 | 14 |
|  | Output | 16 | 20 | 24 | 28 |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & 8 \end{aligned}$ | What rule did Bella follow to get the results in the table below? |  |  |  |  |
|  | Input | 2 | 4 | 6 | 8 |
|  | Output | 8 | 16 | 24 | 32 |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |  |  |

Step Two: Think about and talk about the problem.

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> What rule did Harry follow to get the results in the table below? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Input | 6 | 7 | 8 | 9 |
|  | Output | 30 | 35 | 40 | 45 |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |  |  |
| $\begin{aligned} & O \\ & \mathbf{U} \\ & \mathbf{B} \end{aligned}$ | Step On <br> What rul get the | What rule did Ramona follow to get the results in the table below? |  |  |  |
|  | Input | 8 | 10 | 12 | 14 |
|  | Output | 16 | 20 | 24 | 28 |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & 8 \end{aligned}$ | What rule did Bella follow to get the results in the table below? |  |  |  |  |
|  | Input | 2 | 4 | 6 | 8 |
|  | Output | 8 | 16 | 24 | 32 |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |  |  |

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem

What rule did Bella follow to get the results in the table below?

| $\begin{aligned} & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> What rule did Harry follow to get the results in the table below? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Input | 6 | 7 | 8 | 9 |
|  | Output | 30 | 35 | 40 | 45 |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |  |  |
| $\begin{aligned} & 0 \\ & 4 \\ & B \end{aligned}$ | What rule did Ramona follow to get the results in the table below? |  |  |  |  |
| $\begin{aligned} & \text { Card } 11 \text { Teacher \& Student } \\ & \text { Collaborate } \end{aligned}$ | Input | 8 | 10 | 12 | 14 |
|  | Output | 16 | 20 | 24 | 28 |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |  |  |
|  | Step On <br> What rul the resu | e: Read e did ts in | d the | roble <br> low <br> e bel | get $N ?$ |
|  | Input | 2 | 4 | 6 | 8 |
|  | Output | 8 | 16 | 24 | 32 |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |  |  |

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Step One: Read the problem


NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem

Sean wants to ride his bike 60 miles. He plans to ride the same number of miles each day for 6 days. How many miles should he ride each day? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem

Dan wants to swim 21 miles. He plans to swim the same number of miles each day for 7 days. How many miles should he swim each day? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

## Student Name:

## Step One: Read the problem

Raymond built a triangular brick wall in front of his house. The bottom row had 30 bricks. The second row had 25 bricks, and the third row had 20 bricks.

How many bricks has he used so far?
Using Raymond's pattern, how many bricks will be on the fourth row?

After adding the fourth row, how many bricks will he have used total?

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem
JuJu used wooden blocks to make a small wall for her dog to jump over. The bottom row had 18 blocks. The second row had 15 blocks, and the third row had 12 blocks.

How many blocks has she used so far?

After adding the fourth row, how many blocks will she have used total?

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem
Opal used lego blocks to make a small wall for her doll to sit on. The bottom row had 20 blocks. The second row had 18 blocks, and the third row had 16 blocks.

How many blocks has she used so far?
Using Opal's pattern, how many blocks will be on the fourth row? $\qquad$
After adding the fourth row, how many blocks will she have used total?

NOW ...
Step Two: Think about and talk about the problem.

Date:
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Three: Write HOW you will solve the problem on the lines below:


Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

| 0 <br> H <br>  | Step One: Read the problem <br> Leroy goes to the zoo with his little brother. He buys 2 tickets for $\$ 5.50$ each. He also buys a bag of peanuts for $\$ 3.75$ and a drink for $\$ 1.75$. He has $\$ 3.50$ left over. How much money did he have before going to the zoo? <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & O \\ & \mathbf{0} \\ & \boldsymbol{U} \\ & 3 \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Betty Sue goes to the grocery store. She buys 2 gallons of milk for $\$ 3.25$ each. She also buys a pint of ice cream for $\$ 2.75$ and chocolate syrup for $\$ 3.50$. She has $\$ 7.25$ left over. How much money did she have before going to the store? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | Step One: Read the problem <br> Yani goes to the jazz concert with his daughter. He buys 2 tickets for $\$ 7.75$ each. He also buys a bag of lemon drops for $\$ 1.50$ and a drink for $\$ 1.50$. He has $\$ 1.50$ left over. How much money did he have before going to the concert? <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Date:

## Step One: Read the problem

Trisha planted 3 separate flower gardens. In her first garden she has an array of 5 rows by 4 rows of begonias. In her second garden she has an array of 6 rows by 3 rows of tulips and in her third garden she has an array of 7 rows by 2 rows of daisies. How many tulips does Trisha have? $\qquad$

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem
Ignacio has 3 boxes of balls. He laid the contents of each box in arrays on the grass. The first box had an array of 8 baseballs by 6 baseballs. The second box had an array of 5 footballs by 3 footballs, and the last box had an array of 9 golf balls by 10 golf balls. How many golf balls does Ignacio have? $\qquad$
NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
Sergio has 3 boxes of tools. He laid the contents of each box in arrays in the garage. The first box had an array of 4 hammers by 2 hammers. The second box had an array of 6 screwdrivers by 3 screwdrivers, and the last box had an array of 6 wrenches by 2 wrenches. How many Hammers does Sergio have? $\qquad$
NOW ...
Step Two: Think about and talk about the problem.

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Step One: Read the problem

Drake sells buckets of cookie dough for $\$ 5.95$ each. He has sold 87 buckets over the past month. How much money has Drake earned? $\qquad$

## NOW ..

Step Two: Think about and talk about the problem..
Step One: Read the problem

Ryan sells flags for $\$ 6.35$ each. If he sold 81 flags, how much money would he earn? $\qquad$

## NOW ...

Step Two: Think about and talk about the problem..
Step One: Read the problem

Roseanne sells bottles of lotion for $\$ 4.25$ each. If she sells 72 bottles, how much money will she earn? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.

Date:

| Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. |
| :--- | :--- |
|  |  |
|  |  |

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

## Step One: Read the problem

Micky has a $\$ 50$ bill to spend for a graduation party for his sister. He buys 24 balloons for $\$ 0.89$ each, a pack of paper plates for $\$ 2.55$, a stack of plastic cups for $\$ 3.62$, and 25 cupcakes for $\$ 0.75$ each.

How much will all of the items cost Micky?
Does Micky have enough money?
NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
Carl's mom sends him to the store with a $\$ 20$ bill to buy items for his brother's birthday party. She tells him to buy 9 balloons for $\$ 0.68$ each, plates for $\$ 1.55$, cups for $\$ 1.99$, and 9 cookies for $\$ 0.35$ each.

How much will all of the items cost Carl? $\qquad$ Does Carl have enough money?

## NOW ..

Step Two: Think about and talk about the problem.
Step One: Read the problem
Harold and Tim have $\$ 50$ to spend for their parent's $25^{\text {th }}$ wedding anniversary. They go to the store and buy a cake for $\$ 12.13$. They also buy 12 balloons for $\$ 0.52$ each, plates for $\$ 3.79$, cups for $\$ 3.02$, and 25 roses for $\$ 0.98$ each.
How much will all of the items cost Harold and Tim? $\qquad$ Do they have enough money? $\qquad$
NOW ...
Step Two: Think about and talk about the problem.

Date:

| Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. |
| :--- | :--- |
| $\square$ |  |
|  |  |

## Step Three: Write HOW you will

 solve the problem on the lines below:$\qquad$
$\qquad$


Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Step One: Read the problem

The city of Raleigh experienced a severe flood storm that dumped an average of 1 inch of rain each hour. A total of 1 foot of water fell.

Oklahoma City was hit with a large hail storm. An average of 2 inches of hail fell per hour. If the storm left a total of 1 foot of hail on the ground, how long did the storm last? $\qquad$

## NOW ..

Step Two: Think about and talk about the problem.
Step One: Read the problem

Denver was hit with a blizzard snowstorm that left an average of 3 inches of snow each hour. If the storm left a total of 3 feet of snow, how long did the storm last?

NOW ...
Step Two: Think about and talk about the problem.

Date:

| Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. |
| :--- | :--- |
|  |  |
|  |  |

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Step One: Read the problem


I am a 3-digit odd number. My tens digit is two more than my hundreds digit and one more than my ones digit. The sum of my digits is 21 . What number am $I$ ?

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem

I am a 3-digit odd number. My tens digit is six less than my hundreds digit and two more than my ones digit. The sum of my digits is 13 . What number am I?

## Card 25 Teacher \& Student

## NOW ..

Step Two: Think about and talk about the problem.
Step One: Read the problem

I am a 3-digit even number. My tens digit is two more than my ones digit and four less than my hundreds digit. The sum of my digits is 6 . What number am $I$ ?
Card 25 Student Completes Independently

NOW ...
Step Two: Think about and talk about the problem.

Date:

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: |
| :--- | :--- | :--- |
|  | Barney has two boards. One board <br> is 3 feet long. The other board is <br> 4 times as long. Paco's board is <br> longer than both of Barney's <br> boards placed end to end. What <br> inference can be made about | - |
| Paco's board? |  |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Step One: Read the problem
Use the rectangle below to answer the following questions:
0
0
$\square$
What fraction of the rectangle above is shaded?
What is the reduced form of that fraction?

What fraction of the rectangle above is not shaded?
What is the reduced form of that fraction? $\qquad$
NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
Use the rectangle below to answer the following questions:


What fraction of the rectangle above is shaded? $\qquad$
What is the reduced form of that fraction?

What fraction of the rectangle above is not shaded?
What is the reduced form of that fraction?

NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem
Use the rectangle below to answer the following questions:

What fraction of the rectangle above is shaded? What is the reduced form of that fraction? $\qquad$
Card 27 Student Completes Independently

What fraction of the rectangle above is not shaded? $\qquad$ What is the reduced form of that fraction? $\qquad$

NOW ...
Step Two: Think about and talk about the problem.

Date:
$\left.\begin{array}{|l|l|}\begin{array}{l}\text { Step Three: Write HOW you will } \\ \text { solve the problem on the lines } \\ \text { below: }\end{array} & \begin{array}{l}\text { Step Four: Solve the problem } \\ \text { using pictures, words, or numbers. }\end{array} \\ \square & \\ \hline\end{array}\right]$

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

Step One: Read the problem

Debbie picked 0.40 pounds of green beans. Sal picked 0.80 pounds of peas. Katie picked 3.5 pounds of peppers.

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem

Tammy's cat Sophie had two
kittens. One kitten weighs . 5 pounds and the other weighs 80 pounds. If Millie weighs 9.2 pounds, how much do the three cats weigh in all? $\qquad$

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem
Peter caught a bass that is 1.3
feet long. Dennis caught a catfish that is 1.70 feet long. Chaz caught a carp that is .9 feet long. If you laid the three fish end to end, how long would they measure?

NOW ...
Step Two: Think about and talk about the problem.

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

|  | Step One: Read the problem |
| :--- | :--- |
|  | Tandy weighed her 5 hamsters. |
| Willie weighed 0.47 pounds, Tillie |  |
| weighed 0.31 pounds, Millie |  |
| weighed 0.3 pounds, Billie weighed |  |
| 0.4 pounds, and Lillie weighed |  |
| 0.472 pounds. |  |
| 年 |  |

Date:
Step Three: Write HOW you will solve the problem on the lines below:


Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
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$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:
Step One: Read the problem


Joylene spent $\$ 1,632.78$ for a new dining room table and chairs and $\$ 2,390.08$ for a new sofa and recliner. How much did she spend in all? $\qquad$

## NOW ...

Step Two: Think about and talk about the problem.
Step One: Read the problem

Mr. Davis spent $\$ 3,682.45$ for a new tractor and $\$ 1,350.90$ for a new lawn mower. How much did he spend in all? $\qquad$

## NOW ..

Step Two: Think about and talk about the problem.
Step One: Read the problem

Hope spent $\$ 1,628.99$ for a new sewing machine and $\$ 1,509.80$ for a new washer and dryer. How much did she spend in all? $\qquad$ Card 33 Student Completes Independently

NOW ...
Step Two: Think about and talk about the problem.

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

## Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> Yolanda walked two and one tenths miles on Monday and two and seven tenths miles on Tuesday. How far did she walk altogether? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ |
| :---: | :---: | :---: |
| Card 34 Teacher Models | NOW ... <br> Step Two: Think about and talk about the problem. |  |
| $\begin{aligned} & 0 \\ & \mathbf{U} \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Stuart ran five and six tenths miles during week 1 and seven and two tenths miles during week 2. How far did he run in all? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & \hline \end{aligned}$ | Step One: Read the problem <br> Charlie read for three and seven tenths hours last week and five and 2 tenths hours this week. How many hours did she read in all? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

|  | Step One: Read the problem <br> Mr. Kingston worked $6 \frac{1}{4}$ hours on Tuesday and $8 \frac{3}{4}$ hours on Thursday. How much longer did he work on Thursday than on Tuesday? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | Step One: Read the problem <br> Ronald sang for $4 \frac{1}{4}$ hours last weekend and $5 \frac{1}{4}$ hours this weekend. How many more hours did he sing this weekend than las $\dagger$ weekend? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | Step One: Read the problem <br> Eddie drove $6 \frac{3}{4}$ hours on Friday and $2 \frac{1}{4}$ hours on Saturday. How many more hours did he drive on Friday than Saturday? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: |
| :--- | :--- | :--- |
|  | Willard walked 2.6 miles on |  |
| Wednesday and twice that many |  |  |
| on Friday. How many miles did he |  |  |
| walk in all? |  |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.


# UNIVERSAL SCREENING/BASELINE ASSESSMENT $5^{\text {th }}$ grade 

Directions: Have the student complete the baseline assessment on this page before beginning the "I DO - WE DO - YOU DO" Math Problem Solving Intervention. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

| Step One: Read the problem <br> What number is three hundred <br> sixty-four thousand, nine hundred <br> fifty? | Step Two: Think about the problem <br> and write HOW you will solve the <br> problem on the lines below: |
| :--- | :--- | :--- |
| What number is 8 tens more? |  |

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He /she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 4 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
|  | core: | Score: | Score: | Score: | Score: |

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## Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#1 (given to student after completing 1 week of the intervention)

| Step One: Read the problem | Step Two: Think about the problem <br> and write HOW you will solve the <br> problem on the lines below: |
| :--- | :--- | :--- | :--- |
| GiGi obtained 800 college magazines <br> to pass out to high school seniors in <br> her town. Each magazine has 33 <br> pages. How many pages are there in <br> all of the magazines put together? |  |

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: _ Score: |  | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#2 (given to student after completing 2 weeks of the intervention)

## Step One: Read the problem 8,710,375.82

Round the number above to the nearest tenth:
Round the number above to the nearest ten: $\qquad$
Round the number above to the nearest ten thousand:

Round the number above to the nearest one hundred thousand:
Step Two: Think about the problem
and write HOW you will solve the
problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

 from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He /she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did no $\dagger$ notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Scor | Score: | Score: | Score: |
| 234 | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $5^{\text {TH }}$ GRADE |

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## Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#3 (given to student after completing 3 weeks of the intervention)

Step One: Read the problem
Shawanda is laying tile in a 16-foot by 10 -foot room. Each piece of tile is 1 -foot square. How many pieces of tile will she need to complete the job? $\qquad$
If she only wanted to put tiles around the edge of the room, how many pieces of tiles would she need?


Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#4 (given to student after completing 4 weeks of the intervention)

Step One: Read the problem
Jen has 7 rolls of 50 dimes each. She has an additional 8 dimes and 25 nickels. How much money in dimes does Jen have? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: $\qquad$ <br> ring Assessment | Score: |
| 236 | 'IDO-WEDO- | IO' Math Problem | lving Progress Moni |  | $5^{\text {TH }}$ GRADE |

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Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#5 (given to student after completing 5 weeks of the intervention)

Step One: Read the problem
Cheetah Bus lines carries an average
of 62 passengers on its Cleveland to
Pittsburgh route. It runs 281 such
trips each year. About how many
passengers does it carry on those
trips each year? trips each year?

Step Two: Think about the problem and write HOW you will solve the problem on the lines below: of 62 passengers on its Cleveland to Pittsburgh route. It runs 281 such trips each year. About how many passengers does it carry on those

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#6 (given to student after completing 6 weeks of the intervention)

Step One: Read the problem
Porcelain tea cups are packed in boxes. There are 5 rows with 8 cups in a row in each layer. There are 6 identical layers separated by packing material. How many tea cups are packed in one box?

How many cups would there be in 7 boxes? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |
| 238 | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $5^{\text {TH }}$ GRADE |

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Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#7 (given to student after completing 7 weeks of the intervention)

Step One: Read the problem

The sporting goods store is having a sale. A baseball costs $\$ 0.98$ each. If you buy five baseballs you get the next one for half price. How much would 2 dozen baseballs cost?


Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#8 (given to student after completing 8 weeks of the intervention)

| Step One: Read the problem <br> Paul's Theater is having an audition <br> to cast a play of 15 people. One <br> hundred people audition for the <br> parts. <br> What percent shows the portion of <br> people who try out but don't get <br> parts? | Step Two: Think about the problem <br> and write HOW you will solve the <br> problem on the lines below: |
| :--- | :--- | :--- |
| What percent shows the number of <br> people who didget parts in the <br> play? | $\square$ |

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. $\mathrm{He} /$ she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | core | Score: | Score: | Score: |
| 240 | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $5^{\text {TH }}$ GRADE |

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## Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#9 (given to student after completing 9 weeks of the intervention)

## Step One: Read the problem

 Stephanie charges $\$ 18$ to tutor a student in math for $\frac{3}{4}$ hour. Omar goes to tutoring with Stephanie on Tuesday, Wednesday, and Thursday but only stays for $\frac{1}{2}$ hour each time. How much does Omar pay per session?How much does he pay per week?
If he paid for the week with a $\$ 50$ bill, how much change would he get back?

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.

## Data Point \#10 (given to student after completing 10 weeks of the intervention)

Step One: Read the problem
Gloria received 53 stickers from her teacher at school. Her friend Joyce received 41 stickers and her other friend Grace received 39 stickers.

What was the average number of stickers the three received?


Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. He /she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident <br> 1 | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |
| 242 | 'I DO - WE DO - yOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $5^{\text {TH }}$ GRADE |

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Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade
Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#11 (given to student after completing 11 weeks of the intervention)
Step One: Read the problem
The Renaissance Bank offers different interest rates for its customers. Deposits between $\$ 1$ and $\$ 500$ earn 0.02 on each dollar and deposits between $\$ 501$ and $\$ 1,500$ earn 0.03 on each dollar. If Evan deposits $\$ 1,431$ in an account, how much money will be in the account after one year? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. $\mathrm{He} /$ she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: | Score: |

## Math Problem Solving RTI Progress Monitoring Assessment - $5^{\text {th }}$ grade

Directions: Have the student complete the data point assessment on this page to assess RTI progress. Do not help the student in any way so as to get a true picture of the student's ability relative to math problem solving.
Data Point \#12 (given to student after completing 12 weeks of the intervention)

Step One: Read the problem

Riley flew in a straight line from City A to City B and then on to City C. City $C$ is 2875 miles from City $A$. If the distance between City $A$ and City B is 804 miles, how far is City C from City B? $\qquad$

Step Two: Think about the problem and write HOW you will solve the problem on the lines below:

| $\square$ |
| :--- |
| $\square$ |
| $\square$ |
| $\square$ |
| $\square$ |
| $\square$ |

Step Three: Solve the problem using pictures, words, or numbers.

Using the rubric below, assess how well the student performed in each of the five problem solving elements. DO NOT average the five scores but rather graph each element separate so as to specifically identify the area(s) of greatest concern within the problem solving process. The information derived from this data and the analysis thereof should guide instruction for future sessions.

| Level of Performance | Problem Solving | Reasoning and Proof | Communication | Connections | Representation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemplary | The student understands the problem. He/she used and noted a rule in the solution. $\mathrm{He} /$ she clearly verified that the strategy is correct. <br> If the student found errors he/she explained how the error was discovered and what should be done to correct the problem. | The student showed that he/she knew more about a math idea that he/she used in his/her plan. <br> Or, the student explained a rule and how it was used to solve this problem. <br> All of the student's math thinking is correct. | The student used a lot of specific math language and /or notation throughout his/her work. <br> The paths of the student's thinking were clear. He/she showed step-by-step how he/she arrived at the answer(s). | The student noticed something mathematical in his/her work that reminded him/her of math big ideas, or math strategies \& he/she used that to extend his/her answer. <br> And/or the student showed how this problem is like another problem. | The student used another math representation to help solve the problem and explain his/her work in another way. <br> All of the student's representations are labeled and correct. |
| Proficient | The student understood the problem and his/her strategy works. <br> The student's answer is correct. | All of the student's math thinking is correct. | The student used math language and/or notation throughout his/her work. <br> No one had to guess about the student's lines of thinking or his/her answer(s). | The student noticed something mathematical about his/her work that reminded him/her of some other work and he/she noted it in some way. | The student used a math representation to help solve the problem and explain his/her work, and it is labeled and correct. |
| Emerging | The student only understood part of the problem. Teacher needs to help the student understand how to understand the entire problem. <br> The student's strategy works for part of the problem. He/she needs help in understanding how to finish the problem. | Some of the student's math thinking is correct. <br> The student needs clarity to help in understanding the problem. | The student used some math language and/or math notation. <br> The student needs help in understanding the where and why math language could have been used more effectively in his/her work. | The student tried to notice something, but it is not about the math in the problem. <br> The student needs help in making connections to what he/she knows and understands. | The student tried to use math representation to help solve the problem and explain his/her work, but it has mistakes in it. <br> The student needs help making representations that really show his/her thinking |
| Not <br> Evident | The student did not understand the problem. <br> The student needs help in understanding the problem and choosing a strategy to solve the problem. | The student's math thinking is not correct. <br> The student needs help finding, understanding, and correcting the errors. | The student used no math language and/or math notation. <br> The student needs help to show him/her where he/she could have used math language and/or math notation. | The student did not notice anything about the problem or the numbers in his/her work. <br> The student needs help in making connections to other work and strategies. | The student did not use a math representation to help solve the problem and explain his/her work. <br> The student needs help to understand how to do this better. |
| Score: |  | Score: | Score: | Score: $\qquad$ <br> oring Assessment | Score: |
| 244 | 'I DO - WE DO - YOU DO' Math Problem Solving Progress Monitoring Assessment |  |  |  | $5^{\text {TH }}$ GRADE |

## I DO

## WE



## Math Problem Solving <br> Cards - $5^{\text {th }}$ Grade

Student Name:

| $0$ | Step One: Read the problem <br> What number is four hundred | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | What number is 3 tens more? |  |  |
|  | What number is 5 hundreds less? |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. | $-$ |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \boldsymbol{\Psi} \end{aligned}$ | Step One: Read the problem <br> What number is eight hundred twenty-nine thousand, five hundred thirty? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
|  | What number is 7 tens more? |  |  |
|  | What number is 9 hundreds less? |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \lambda \end{aligned}$ | Step One: Read the problem <br> What number is seven hundred seven thousand, six hundred forty-five? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | What number is 6 tens more? |  |  |
|  | What number is 2 hundreds less? |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. | - |  |

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

| $\bigcirc$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | Yuri ran 12.9 miles in three hours. How many miles per hour did he run? $\qquad$ |  |  |
|  |  |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \boldsymbol{\Psi} \end{aligned}$ | Mason ran 32.6 miles over the span of 8 hours. How many miles per hour did he run? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  |  |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \lambda \end{aligned}$ | Lila entered a walking contest. She walked 25.1 miles over the span of 10 hours. How many miles per hour did she walk? $\qquad$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  |  |  |  |

Student Name:

| 0 | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| H | Write the following numbers in order from least to greatest. <br> $7,236,590 ; 7,326,905 ; \quad 7,236,059$ |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| $\underset{\$}{\amalg}$ | Write the following numbers in order from least to greatest. |  |  |
| $\begin{aligned} & \text { Card } 4 \text { Teacher \& Student } \\ & \text { Collaborate } \end{aligned}$ | 3,8 |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| $\stackrel{?}{2}$ | Write the following numbers in order from least to greatest. |  |  |
|  | 9,058,163; $9,085,631 ; 9,508,316$ |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:


Student Name:

| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| H | Brad has $\$ 819,208$ in the bank. He wants to buy a boat for $\$ 7,981$. If he buys the boat, about how much money will he have left? |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & \mathbf{B} \end{aligned}$ | Step One: Read the problem <br> The opera house made $\$ 231,649$ in ticket sales last year. Of that amount, $\$ 6,098$ was paid to the janitor to clean the auditorium. About how much money is left? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Step One: Read the problem <br> The library has 638,429 books. A total of 4,210 books had to be discarded due to a flood. About how many books are left? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. <br> What is the standard form for <br> forty-three million, nine hundred <br> seventy-two thousand, eleven? |
| :--- | :--- | :--- | :--- |

Student Name: $\qquad$

## Step One: Read the problem

Make a Venn diagram to solve the problem below:

DeeDee surveyed her class to find out which kind of pizza each person likes.
The results showed that 9 like cheese, 8 like pepperoni, 3 like sausage, 2 like both cheese and pepperoni, 2 like pepperoni and sausage, 3 like cheese and sausage, and 2 like all three kinds.

How many students were surveyed?
NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem Make a Venn diagram to solve the problem below:

Bob surveyed factory workers in his town about which shift they prefer to work. The results showed that 22 like mornings, 14 like afternoons, 13 like nights, 17 like both mornings and afternoons, 21 like both mornings and nights, 19 like afternoons and nights, and 5 like all three shifts.

How many factory workers were surveyed? NOW ...
Step Two: Think about and talk about the problem.
Step One: Read the problem Make a Venn diagram to solve the problem below:

Chloe surveyed $3^{\text {rd }}$ graders in her school to find out what their favorite subjects are. The results showed that 18 like reading, 17 like math, 12 like science, 25 like both reading and science, 9 like both math and science, and 5 like all three subjects.

How many $3^{\text {rd }}$ graders were surveyed?
NOW ...
Step Two: Think about and talk about the problem.

Date:
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$
$\qquad$
$\qquad$
$\qquad$

$\qquad$
$\qquad$
$\qquad$

Step Three: Write HOW you will solve the problem on the lines below:
$\qquad$

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

| 0 | Step One: Read the problem <br> Justine has 3 rolls of 50 dimes | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| H | Justine has 3 rolls of 50 dimes each. She has an additional 15 dimes and 43 nickels. How much money in dimes does Justine have? |  |  |
| Card 12 Teacher Models | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{U} \\ & 3 \end{aligned}$ | Waylon has 4 rolls of 50 dimes each. He has an additional 32 dimes and 8 quarters. How much money in dimes does Waylon have? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \lambda \end{aligned}$ | Step One: Read the problem <br> Candy has 5 rolls of 50 dimes each. She has an additional 18 dimes and 15 nickels. How much money in dimes does Candy have? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:


Student Name:

| $\begin{aligned} & \mathrm{O} \\ & \mathbf{H} \end{aligned}$ | Step One: Read the problem <br> How many dogs will there be in each group if you divide 122,376 dogs into 8 equal groups? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| Card 14 Teacher Models | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \boldsymbol{B} \end{aligned}$ | Step One: Read the problem <br> How many people will there be in each group if you divide 69,350 people into 5 equal groups? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem.NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \vdots \\ & \lambda \end{aligned}$ | Step One: Read the problem <br> How many cats will there be in each group if you divide 114,667 cats into 7 equal groups? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem.NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:


Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: | Step Four: Solve the problem <br> using pictures, words, or numbers. <br> Brownies are packed in boxes. <br> There are 6 rows with 4 brownies <br> in a row in each layer. There are 4 <br> identical layers separated by cloth <br> material. How many brownies are <br> packed in one box? |
| :--- | :--- | :--- | :--- |

Student Name:


Student Name:


Student Name:

| 0 | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| H | The local grocery store is having a sale. A can of soda is $\$ 0.84$ each. If you buy five cans you get the next one for half price. How much would 2 dozen cans of soda cost? |  |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. | $\qquad$ |  |
| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| $\boldsymbol{\Psi}$ | Carnations are on sale at Katherine's Flower Shop. Each carnation is $\$ 0.62$ each. If you |  |  |
| $\begin{aligned} & \text { Card } 19 \text { Teacher \& Student } \\ & \text { Collaborate } \end{aligned}$ | next one for half price. How much would 3 dozen cost? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem.. | $\bar{\square}$ $\bar{\square}$ $\square$ $\square$ |  |
| $0$ | Step One: Read the problem | Step Three: Write HOW you will solve the problem on the lines below: | Step Four: Solve the problem using pictures, words, or numbers. |
| $\stackrel{?}{2}$ | Emily is selling chocolate bars at $\$ 0.96$ each. If you buy five chocolate bars you get the next |  |  |
|  | would 1 dozen cost? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> How many different ways can you make rectangular arrays for the number 32? $\qquad$ <br> What are they? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & \boldsymbol{B} \end{aligned}$ | Step One: Read the problem <br> How many different ways can you make rectangular arrays for the number 42? $\qquad$ <br> What are they? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Step One: Read the problem <br> How many different ways can you make rectangular arrays for the number 50? $\qquad$ What are they? | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:

|  | Step One: Read the problem | Step Three: Write HOW you will <br> solve the problem on the lines <br> below: |
| :--- | :--- | :--- |
|  | Dana has two cuckoo clocks. One <br> must be wound every 8 days and <br> the other must be wound every 10 <br> days. Dana winds up both clocks on <br> March 26. When is the next time <br> she will have to wind both of the <br> clocks on the same day? | - |
| N |  |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

| $\begin{aligned} & O \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> The Kendrick family just finished eating Thanksgiving dinner and are about to eat dessert. There are 4 pies that are cut into 8 slices each. They eat a total of 31 slices. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | Write a mixed number that shows how many pies they ate in all: <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & 3 \end{aligned}$ | Step One: Read the problem <br> Kimberly ordered 7 pizzas for her daughter's birthday party. Each pizza was divided into 6 slices | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | Write a mixed number that shows how many pizzas they ate in all: $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & 8 \end{aligned}$ | Step One: Read the problem <br> Nadia's baking class baked 5 cakes. Each cake was divided into 12 slices. A total of 45 slices were eaten. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | Write a mixed number that shows how many cakes they ate in all: $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:


Student Name:


Student Name:

| $\begin{aligned} & O \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> Ned bought 3 lb . of beans at $\$ 0.68$ a pound, 12 lb . of potatoes at $\$ 1.23$ a pound, and 4 sacks of rice for $\$ 2.18$ each. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | How much was the total bill? <br> If Ned paid with a $\$ 100$ bill, how much change would he get back? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \mathbf{~} \end{aligned}$ | Step One: Read the problem <br> Wynona sold 5 gallons of sweet tea at $\$ 3.79$ a gallon, 2 gallons of un-sweet tea at $\$ 2.54$ a gallon, and 7 candy bars $\$ 0.98$ each. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How much money did Wynona make? $\qquad$ <br> If the buyer paid with a $\$ 50$ bill, how much change did he get back? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & \text { Q } \\ & \text { O} \\ & \lambda \end{aligned}$ | Step One: Read the problem <br> Mrs. Long bought 6 lb . of chicken at $\$ 2.65$ a pound, 6 lb . of steak at $\$ 5.50$ a pound, and 9 packs of hotdogs for $\$ 3.01$ each. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | How much was the total bill? <br> If Mrs. Long paid with a $\$ 100$ bill, how much change did she get back? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:


Student Name:


Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> What are the next two numbers in the pattern? $1 / 8, \quad 4 / 8, \quad 7 / 8, \quad 12 / 8, \quad 15 / 8,$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| Card 30 Teacher Models | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & \mathbf{~} \\ & \boldsymbol{B} \end{aligned}$ | Step One: Read the problem <br> What are the next two numbers in the pattern? $1 / 10, \quad 7 / 10, \quad 13 / 10, \quad 19 / 10, \quad 2^{2} / 10$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | Step One: Read the problem <br> What are the next two numbers in the pattern? $1 / 12, \quad 9 / 12, \quad 15 / 12, \quad 2^{1 / 12}, \quad 29 / 12$ | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:


Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:


Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> Ariela had color guard practice at 4:15 p.m. The practice lasted 2 hours and 20 minutes. She then went out to eat with her | Step Three: Write HOW you will solve the problem on the lines below: |
| :---: | :---: | :---: |
| Teacher Models | eating one hour and 40 minutes after practice let out. It then took 20 minutes to drive home. At what time did Ariela arrive at home? $\qquad$ |  |
| - | NOW ... <br> Step Two: Think about and talk about the problem. |  |
| $\begin{aligned} & \mathbf{O} \\ & \boldsymbol{\Psi} \\ & 3 \end{aligned}$ | Step One: Read the problem <br> Georgette had a doctor's appointment at 10:30 a.m. It took her 25 minutes to drive to the doctor's office. Before leaving her | Step Three: Write HOW you will solve the problem on the lines below: |
|  | shower and another 25 minutes to get dressed. At what time did Georgette take her shower? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 2 \end{aligned}$ | Step One: Read the problem <br> John met his best friend at the movie theater at 6:15 p.m. They bought tickets for a movie that started 15 minutes later. The | Step Three: Write HOW you will solve the problem on the lines below: |
|  | minutes. Immediately afterwards they ran into two other friends in the lobby and stopped to talk for 15 minutes before leaving. At what time did they leave the movie theater? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |

Date:
Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Step Four: Solve the problem using pictures, words, or numbers.

Student Name:

| $\begin{aligned} & 0 \\ & 0 \\ & H \end{aligned}$ | Step One: Read the problem <br> Rory answered 22 out of 25 questions correctly on her science test. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
|  | What percentage did she get correct? $\qquad$ What percentage did she not get correct? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & \boldsymbol{~} \end{aligned}$ | Step One: Read the problem <br> Nelly answered 17 out of 20 questions correctly on her math test. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | What percentage did she get correct? $\qquad$ What percentage did she not get correct? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & 0 \end{aligned}$ | Step One: Read the problem <br> Dave answered 25 out of 40 questions correctly on his English test. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  | What percentage did he get correct? $\qquad$ What percentage did he not get correct? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. |  |  |

Student Name:

|  | Step One: Read the problem <br> Dolly flew in a straight line from Atlanta to Nashville and then on to Salt Lake City. Salt Lake city is 1878 miles from Atlanta. If the distance between Atlanta and Nashville is 253 miles, how far is Nashville from Salt Lake City? | Step Three: Write HOW you will solve the problem on the lines | Step Four: Solve the problem using pictures, words, or numbers. |
| :---: | :---: | :---: | :---: |
| H |  | $\qquad$ |  |
| $\text { Card } 35 \text { Teacher Models }$ |  | $\qquad$ |  |
|  | NOW ... <br> Step Two: Think about and talk about the problem. | $\qquad$ |  |
| $\begin{aligned} & \mathbf{O} \\ & \boldsymbol{\Psi} \\ & \mathbf{B} \end{aligned}$ | Step One: Read the problem <br> Megan traveled in a straight line from Chicago to Birmingham and then on to Panama City Beach. Panama City Beach is 941 miles from Chicago. If the distance between Chicago and Birmingham is 662 miles, how far is Birmingham from Panama City Beach? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  |  |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & ? \\ & 8 \end{aligned}$ | Step One: Read the problem <br> Arsenio traveled in a straight line from New York City to Springfield and then on to Los Angeles. Los Angeles is 2780 miles from New York City. If the distance between New York City and Springfield is 662 miles, how far is Los Angeles from Springfield? $\qquad$ <br> NOW ... <br> Step Two: Think about and talk about the problem. | Step Three: Write HOW you will solve the problem on the lines below: $\qquad$ $\qquad$ | Step Four: Solve the problem using pictures, words, or numbers. |
|  |  |  |  |

## Student Name:



## I DO



Math Problem
Solving Intervention
Answers

## First Grade

US/BL: Five grapes
DP \#1: 7 books
DP \#2: 6 puppies
DP \#3: 2 dimes; 20 cents
DP \#4: 1 purple block
DP \#5: 6 miles
DP \#6: 8 cars
DP \#7: 5 stacks
DP \#8: 70 plants
DP \#9: 37 pounds; 35 pounds
DP \#10: 7 children
DP \#11: 13 canoes
DP \#12: 5 people
Card \#1
I DO: 7 cats
WE DO: 8 flowers
YOU DO: 9 elephants
Card \#2
I DO: 6 owls
WE DO: 7 children
YOU DO: 9 flowers
Card \#3
I DO: 6+1=7
WE DO: 3+6=9
YOU DO: 3+5=8
Card \#4
I DO: 5+1
WE DO: 3+2
YOU DO: 3+4
Card \#5
I DO: 9 cents
WE DO: $\$ 10$
YOU DO: \$7
Card \#6
I DO: 2 apples
WE DO: 1 cat
YOU DO: 4 coconuts
Card \#7
I DO: 5 fish
WE DO: 4 books
YOU DO: 4 chairs
Card \#8
I DO: 2 dimes; 20 cents
WE DO: 3 quarters; 75 cents
YOU DO: 5 dimes; 50 cents
Card \#9
I DO: 3 red books
WE DO: 1 stick of gum
YOU DO: 5 tomatoes
Card \#10
I DO: 6 miles, 12 miles
WE DO: 14 miles, 21 miles
YOU DO: 10 miles, 15 miles
Card \#11
I DO: 3 cookies
WE DO: 4 coins
YOU DO: 5 marbles
Card \#12
I DO: add 3
WE DO: add 4
YOU DO: add 2

Card \#13
I DO: 8+1=9; 5:2=3; 4+6=10
WE DO: 7+2=9; 7:3=4
YOU DO: 5+0=5; 6+3=9
Card \#14
I DO: 6+2=8; 2+6=8; 8-2=6; 8-6=2
WE DO: $3+5=8 ; 5+3=8 ; 8-5=3 ; 8-3=5$
YOU DO: 6+4=10; 4+6=10; 10-6=4; 10-4=6
Card \#15
I DO: 6, 2, 8
WE DO: $5,7,12$
YOU DO: 4, 5, 9
Card \#16
I DO: 3 children; 2 children; 2 children
WE DO: 3 children; 5 children; 1 child
YOU DO: four children; five children; two children
Card \#17
I DO: 6 boxes
WE DO: 4 bags
YOU DO: 8 bags
Card \#18
I DO: 46 pears
WE DO: 89 carrots
YOU DO: 37 cards
Card \#19
I DO: 35 rings
WE DO: 48 fish
YOU DO: 67 pictures
Card \#20
I DO: 23 games
WE DO: 28 pages
YOU DO: 6 laps
Card \#21
I DO: 30 teddy bears
WE DO: 3 songs
YOU DO: 32 books
Card \#22
I DO: less-than symbol (<)
WE DO: greater than symbol (>)
YOU DO: less than symbol (<)
Card \#23
I DO: 57 inches
WE DO: 69 cows
YOU DO: 57 movies
Card \#24
I DO: 69 pounds; 67 pounds
WE DO: 90 minutes; 88 minutes
YOU DO: 75 seashells; 73 seashells
Card \#25
I DO: 50 flowers; 30 flowers
WE DO: $50 \mathrm{CDs} ; 70 \mathrm{CDs}$
YOU DO: 40 baseball cards; 20 baseball cards
Card \#26
I DO: about 20 students
WE DO: about 50 lemon drops
YOU DO: about 70 steps
Card \#27
I DO: 36
WE DO: 72
YOU DO: 41

Card \#28
I DO: 56, 46, 36
WE DO: $32,22,12$
YOU DO: 27,17,7
Card \#29
I DO: heart, star, smiley
WE DO: left arrow, right arrow, donut
YOU DO: lightning bolt, hourglass, rainbow
Card \#30
I DO: 5 children
WE DO: 4 people
YOU DO: three gifts
Card \#31
I DO: 12 soccer goals
WE DO: 10 days
YOU DO: 13 frisbees

## Card \#32

I DO: 59 buttons
WE DO: 64 pages
YOU DO: 93 tickets
Card \#33
I DO: 23 bird houses
WE DO: \$30
yOU DO: 15 birds
Card \#34
I DO: 3 students
WE DO: 5 people
YOU DO: \$20
Card \#35
I DO: 14 flat surfaces
WE DO: 18 flat surfaces
YOU DO: 14 flat surfaces
Card \#36
I DO: 286, 293, 300, 307, 314
WE DO: $695,699,703,707,711$
YOU DO: 512, 517, 522, 527, 532

## Second Grade

US/BL: 7 groups
DP \#1: 64 pencils
DP \#2: 15 candles
DP \#3: 56 bird houses; 0+56=56
DP \#4: \$51
DP \#5: 43 kids
DP \#6: 52 doctors
DP \#7: 27 boxes
DP \#8: $\$ 30.45$
DP \#9: 13 inches
DP \#10: \$5
DP \#11: 90; 4; 600
DP \#12: 504
Card \#1
I DO: 50 cards
WE DO: 70 books
YOU DO: 40 CDs
Card \#2
I DO: 5 tens and 7 ones
WE DO: 8 tens and 3 ones
YOU DO: 7 tens and 1 one
Card \#3
I DO: 40 CDs
WE DO: 20 gumdrops
YOU DO: 20 miles
Card \#4
I DO: 24 stickers
WE DO: 21 pictures
YOU DO: 40 words
Card \#5
I DO: 3 frogs
WE DO: 5 children
YOU DO: 3 children
Card \#6
I DO: 14 items
WE DO: 9 pets
YOU DO: 11 books

Card \#7
I DO: 9 books; 9+0=9
WE DO: 5 laps; 0+5=5
YOU DO: 5 blocks; 5+0=5
Card \#8
I DO: 5 mechanics; 8-3-5
WE DO: 3 zebras; 5-2=3
YOU DO: 2 students; 7-5=2
Card \#9
I DO: true
WE DO: false
YOU DO: false
Card \#10
I DO: 49 seashells
WE DO: 58 butterflies YOU DO: 59 fish
Card \#11
I DO: 37 crackers
WE DO: 31 pages YOU DO: 37 pennies
Card \#12
I DO: 70
WE DO: 70 YOU DO: 90
Card \#13
I DO: 5 cups WE DO: 2 red apples YOU DO: 5 purple dresses
Card \#14
I DO: 62 chocolate covered cherries
WE DO: 43 treats
YOU DO: 26 children
Card \#15
I DO: 20 doughnuts
WE DO: 13 dogs
YOU DO: 22 minutes

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Card #16
    I DO: }34\mathrm{ hot dogs
    WE DO: }28\mathrm{ students
    YOU DO: }14\mathrm{ pets
Card #17
    I DO: Will, Toby
    WE DO: Tina, Simon
    YOU DO: Trixie, Amanda
Card #18
    I DO: }20\mathrm{ flowers
    WE DO: }15\mathrm{ hours
    YOU DO: }13\mathrm{ vegetables
Card #19
    I DO: }35\mathrm{ cans
    WE DO: }12\mathrm{ necklaces
    YOU DO: }21\mathrm{ bottles
Card #20
    I DO: }73\mathrm{ minutes
    WE DO: }95\mathrm{ minutes
    YOU DO: }114\mathrm{ minutes
Card #21
    I DO: 47 circles
    WE DO: }29\mathrm{ tickets
    YOU DO: 58 seashells
Card #22
    I DO: }5\mathrm{ magazines
    WE DO: }22\mathrm{ nickels
    YOU DO: }42\mathrm{ stamps
Card #23
    I DO: yes; }31\mathrm{ cents
    WE DO: yes; }17\mathrm{ cents
    YOU DO: yes; }10\mathrm{ cents
Card #24
    I DO: $18.70
    WE DO: $7.35
    YOU DO: $13.80
Card #25
    I DO: $7.50
    WE DO: $4.50
    YOU DO: $2.50
```


## Third Grade

US/BL: 726; 636; 735
DP \#1: 2,489; 9,842
DP \#2: 882 employees, 900, 880
DP \#3: 29 hotdogs
DP \#4: 14 half dollars; 28 quarters; 70 dimes; 140
nickels; 700 pennies
DP \#5: 70 strawberry plants
DP \#6: 9 pine trees
DP \#7: \$15.13
DP \#8: 27 men
DP \#9: Add 12; 813, 825
DP \#10: ${ }^{11} / 15 ;{ }^{4} / 15$
DP \#11: 4:00 p.m.
DP \#12: 34,011; 34,022; 33,912; 35,012; 24,012

```
Card #26
    I DO: 6:25 p.m.
    WE DO: 8:00 a.m.
    YOU DO: 10:25 a.m.
Card #27
    I DO: 17 pounds
    WE DO: }14\mathrm{ inches
    YOU DO: }25\mathrm{ minutes
Card #28
    I DO: 8 feet
    WE DO: 3 feet
    YOU DO: }2\mathrm{ feet
Card #29
    I DO: 70 degrees
    WE DO: }25\mathrm{ degrees
    YOU DO: }42\mathrm{ degrees
Card #30
    I DO: $4
    WE DO: $2
    YOU DO: $2
Card #31
    I DO: 400 marbles
    WE DO: }700\mathrm{ cards
    YOU DO: }800\mathrm{ lemon drops
Card #32
    I DO: 40; 300; }
    WE DO: 90; 700; }
    YOU DO: 80; 0;600
Card #33
    I DO: 76+401=477
    WE DO: 67+97=164
    YOU DO: 76+401=477
Card #34
    I DO: 624,627,630,633
    WE DO: 739,744,749,754
    yOU DO: 241,245,249,253
Card #35
    I DO: }84
    WE DO:462
    YOU DO: }90
Card #36
    I DO: 1,004
    WE DO: 1,077
    YOU DO: 1,040
```

    I DO: 29 birdhouses
    WE DO: 75 books
    YOU DO: 42 miles
    Card \#2
I DO: 574; 484; 583
WE DO: 704; 614; 713
YOU DO: 319; 229; 328
Card \#3
I DO: 1,257; 7,521
WE DO: 3,489; 9,843
YOU DO: 1,368; 8,631

WE DO: 92,418; 90,008; 915; 94,287
YOU DO: 47,359; 47,059; 40,700; 40,007
Card \#5
I DO: 400 \& 500; 30 \& 40; 400; 440
WE DO: 700 \& 800; 50 \& 60; 800; 750
YOU DO: 300 \& 400; 80 \& 90; 400; 390
Card \#6
I DO: 991 students; 1,000; 990
WE DO: 1,261 chefs; 1,$300 ; 1,260$
YOU DO: 537 butterflies; 500; 540
Card \#7
I DO: 95 stamps; 9 years
WE DO: 79 songs; 12 years
YOU DO: 96 words; 20 years
Card \#8
I DO: 45 fish
WE DO: \$163
YOU DO: 138 hotdogs
Card \#9
I DO: \$36
WE DO: \$68
YOU DO: \$74
Card \#10
I DO: 1,810 cans
WE DO: 1,916 pennies
yOU DO: $\$ 1,499$
Card \#11
I DO: 18 half dollars, 36 quarters, 90 dimes, 180
nickels, 900 pennies
WE DO: 12 half dollars, 24 quarters, 60 dimes, 120
nickels, 600 pennies
YOU DO: 16 half dollars, 32 quarters, 80 dimes,
160 nickels, 800 pennies
Card \#12
I DO: 40 cookies
WE DO: 24 post cards
YOU DO: 30 pencils
Card \#13
I DO: 16 balloons; 32 balloons
WE DO: 6 games; 18 games
you DO: \$8: \$32
Card \#14
I DO: July $14^{\text {th }} ;$ July $3^{\text {rd }}$
WE DO: March $21^{\text {st }} ;$ March $9^{\text {th }}$
YOU DO: December $13^{\text {th }}$; December $11^{\text {th }}$
Card \#15
I DO: 48 plants
WE DO: 90 books
YOU DO: 32 rooms
Card \#16
I DO: 5 crackers
WE DO: 10 students
YOU DO: 6 cards
Card \#17
I DO: 12 flowers
WE DO: 9 students
YOU DO: 12 cars
Card \#18
I DO: 28 years old; 33 years old
WE DO: 6 years old; 16 years old
YOU DO: 29 years old; 66 years old
Card \#19
I DO: 40 crackers
WE DO: 50 books

YOU DO: 57 peanuts
Card \#20
I DO: 29 people; blue; 1 person
WE DO: 40 people; cat; 12 people
YOU DO: 36 people; Lincoln; 10 people
Card \#21
I DO: \$17.71
WE DO: $\$ 35.68$
YOU DO: $\$ 5.85$
Card \#22
I DO: Sigmund
WE DO: Wanda
yOU DO: Donavan
Card \#23
I DO: 7,000; 20,000; 5; 900
WE DO: 60; 2; 90,000; 3,000
yOU DO: 40; 3; 8,000; 700
Card \#24
I DO: 31 students
WE DO: 28 girls
YOU DO: 27 boys
Card \#25
I DO: 20 inches; 16 inches
WE DO: 12 inches; 20 inches
YOU DO: 28 inches; 32 inches
Card \#26
I DO: \$1.97
WE DO: $\$ 2.86$
YOU DO: $\$ 5.75$
Card \#27
I DO: Add eleven; 458; 469
WE DO: Add 50; 598; 648
YOU DO: Add 5; 903; 908
Card \#28
I DO: ${ }^{7} / 8 ;{ }^{1 / 8}$
WE DO: ${ }^{5} / 6 ; 1 / 6$
YOU DO: $3 / 5 ; 2 / 5$
Card \#29
I DO: $9 / 10 ; 1 / 10$
WE DO: $9 / 9=1 ; 0$
YOU DO: $8 / 12=2 / 3 ;{ }^{4} / 12=1 / 3$
Card \#30
I DO: ${ }^{2 / 4}$ or $\frac{1}{2}$
WE DO: ${ }^{3} / 8$
YOU DO: $6 / 16=3 / 8$
Card \#31
I DO: \$27.64
WE DO: \$24.09
YOU DO: \$24.01
Card \#32
I DO: 1,308 people
WE DO: 945 people
YOU DO: 416 people
Card \#33
I DO: 3:30 p.m.
WE DO: 5:15 p.m.
YOU DO: 3:00 p.m.
Card \#34
I DO: 2 pumpkins
WE DO: 3 nickels
YOU DO: 5 army men
Card \#35
I DO: 67,$506 ; 67,517 ; 67,407 ; 68,507 ; 57,507$

WE DO: 80,130; 80,119; 80,229; 79,129; 70,129
you DO: 45,042; 45,051; 44,951; 44,041; 35,041

Card \#36

I DO: $1^{\text {st }}$ position, $3^{\text {rd }}$ position, $2^{\text {nd }}$ position, $4^{\text {th }}$ position
WE DO: Yancey, Luke, Paul, Chuck
YOU DO: Trip, Dorsey, Wally, Nick

Fourth Grade

US/BL: \$19.33
DP \#1: 41 cents
DP \#2: 81,372; 81,802; 87,302; 91,302
DP \#3: 799 miles
DP \#4: Multiply by 7
DP \#5: \$13.75
DP \#6: 96 cabbages
DP \#7: \$350
DP \#8: 17 pieces
DP \#9: 538
DP \#10: $10^{5 / 8}$ gallons
DP \#11: black puppy, spotted puppy
DP \#12: 19.2 miles
Card \#1
I DO: \$14.60
WE DO: \$11.52
YOU DO: \$19.62
Card \#2
I DO: 923
WE DO: 437
YOU DO: 182
Card \#3
I DO: 63 cents
WE DO: 10 cents
YOU DO: 70 cents
Card \#4:
I DO: 845,$091 ; 845,190 ; 854,901 ; 854,910$
WE DO: 329,152; 329,321; 392,215; 392,512
YOU DO: 768,109; 768,910; 786,019; 786,091
Card \#5
I DO: About 2,300 people
WE DO: About 2,400 people
YOU DO: About 1,400 people
Card \#6
I DO: 76,449; 76,689; 78,389; 96,389
WE DO: 29,048; 29,918; 30,018; 69,018
YOU DO: 51,680; 51,830; 59,630; 81,630
Card \#7
I DO: \$22.15
WE DO: $\$ 14.49$
YOU DO: \$1.34
Card \#8
I DO: \$240
WE DO: \$336
YOU DO: $\$ 105$
Card \#9
I DO: 589 miles
WE DO: 1,882 miles
YOU DO: 1,269 miles
Card \#10
I DO: 6,407,281
WE DO: 3,904,112
YOU DO: 1,504,862
Card \#11
I DO: Multiply by 5
WE DO: Multiply by 2

YOU DO: Multiply by 4
Card \#12
I DO: 3,200; 2,700; 2,200
WE DO: 1,400; 3,720; 2,730
YOU DO: 3,360; 3,040; 1,380
Card \#13
I DO: 6 miles
WE DO: 10 miles
YOU DO: 3 miles
Card \#14
I DO: 75 bricks; 15 bricks; 90 bricks
WE DO: 45 blocks; 9 blocks; 54 blocks
YOU DO: 54 blocks; 14 blocks; 68 blocks
Card \#15
I DO: \$19
WE DO: $\$ 20$
YOU DO: \$20
Card \#16
I DO: 32 tiles
WE DO: 28 stitches
YOU DO: 61 cloth squares
Card \#17
I DO: 18 tulips
WE DO: 90 golf balls
YOU DO: 8 hammers
Card \#18
I DO: 840 lemons
WE DO: 714 tickets
YOU DO: 432 plates
Card \#19
I DO: \$517.65
WE DO: $\$ 514.35$
YOU DO: \$306
Card \#20
I DO: \$110
WE DO: \$126
YOU DO: \$85
Card \#21
I DO: \$46.28; yes
WE DO: \$12.81; yes
YOU DO: \$49.68; yes
Card \#22
I DO: 14 cupcakes
WE DO: 3 apples
YOU DO: 3 cards
Card \#23
I DO: 12 hours
WE DO: 6 hours
YOU DO: 12 hours
Card \#24
I DO: 30 floors
WE DO: 72 seedlings
YOU DO: 189 blocks
Card \#25
I DO: 678

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    WE DO: }93
    YOU DO:420
Card #26
    I DO: Paco's board is longer than }15\mathrm{ feet long
    WE DO: Reagan's pumpkin weighs more than }1
    pounds
    YOU DO: Victor owns more than 40 acres of land
Card #27
    I DO: 6/8; 吕; 2/8, \frac{1}{4}
    WE DO: 8/10; 4/5; '/10; 1/5
    YOU DO: 3/9;1/3; %/9; 2/3
Card #28
    I DO: hot chocolate, apple cider, coffee
    WE DO: oil, antifreeze, gasoline
    YOU DO: blueberry, blackberry, strawberry
Card #29
    I DO: 5 \frac{1}{2}}\mathrm{ pizzas
    WE DO: 10 \frac{1}{2}}\mathrm{ cups of juice
    YOU DO: 9 2/3 gallons of tea
Card #30
    I DO: 22 feet; 28 feet
    WE DO: }22\mathrm{ feet; }30\mathrm{ feet
    YOU DO: }38\mathrm{ feet; }90\mathrm{ feet
Card #31
```

I DO: 4.7 pounds
WE DO: 10.5 pounds
YOU DO: 3.9 pounds
Card \#32
I DO: Lillie; Millie
WE DO: red book; yellow book
YOU DO: level; screwdriver
Card \#33
I DO: \$4,002.86
WE DO: $\$ 5,033.35$
YOU DO: $\$ 3,138.79$
Card \#34
I DO: $4 \frac{4}{5}$ miles
WE DO: $124 / 5$ miles
YOU DO: $89 / 10$ hours
Card \#35
I DO: $2 \frac{1}{2}$ hours
WE DO: 1 hour
YOU DO: $4 \frac{1}{2}$ miles
Card \#36
I DO: 7.8 miles
WE DO: 16.2 pounds
YOU DO: 5.7 feet

## Fifth Grade

US/BL: 364,950; 365,030; 364550
DP \#1: 26,400 pages
DP \#2: 8,710,375.8; 8,710,380; 8,710,000; 8,700,000
DP \#3: 160 pieces, 52 pieces
DP \#4: $\$ 35.80$
DP \#5: 17,422 passengers
DP \#6: 240 teacups; 1,680 cups
DP \#7: \$21.56
DP \#8: 85\%, 15\%
DP \#9: $\$ 12, \$ 36, \$ 14$
DP \#10: 44 1/3 stickers
DP \#11: \$1,473.93
DP \#12: 2,760 miles
Card \#1
I DO: 463,091; 463,121; 462,591
WE DO: 829,$530 ; 829,600 ; 828,630$
YOU DO: 707,645; 707,705; 707,445
Card \#2
I DO: 9,600 eggs
WE DO: 27,000 lemon drops
YOU DO: 10,000 cards
Card \#3
I DO: 4.3 miles
WE DO: 4.075 miles
YOU DO: 2.51 miles
Card \#4
I DO: $7,236,059 ; 7,236,590 ; 7,326,905$
WE DO: $3,841,372 ; 3,841,732 ; 3,844,273$
YOU DO: $9,058,163 ; 9,085,631 ; 9,508,316$
Card \#5
I DO: 7,208,641.1; 7,208,640; 7,210,000;
7,200,000
WE DO: 9,481,013; 9,481,010; 9,480,000;
9,500,000

YOU DO: 6,538,120.5; 6,538,120; 6,540,000; 6,500,000
Card \#6
I DO: \$811,000
WE DO: $\$ 226,000$
YOU DO: 634,000 books
Card \#7
I DO: \$693: \$621-\$84-\$62 + \$218
WE DO: 192 cars; 216-54-72+102
YOU DO: 342 muffins; 484-123-84+65
Card \#8
I DO: Chip; Vance; 232 dart games
WE DO: Lisa; Bea; 26 games each
YOU DO: owls; eagles \& falcons; 22 games each Card \#9

I DO: 168 pieces; 52 pieces
WE DO: 162 pieces; 54 pieces
YOU DO: 160 stones; 56 pieces
Card \#10
I DO: 43,972,011
WE DO: 16,008,251
YOU DO: 21,480,902
Card \#11
I DO: 29 students
WE DO: 111 factory workers
YOU DO: 114 third graders
Card \#12
I DO: \$16.50
WE DO: \$23.20
YOU DO: $\$ 26.80$
Card \#13
I DO: about 32,000 passengers WE DO: about 100,000 words YOU DO: 59,000 passengers
Card \#14

I DO: 15,297 dogs
WE DO: 13,870 people
YOU DO: 16,381 cats
Card \#15
I DO: 496 miles
WE DO: 585 miles
YOU DO: 638 miles
Card \#16
I DO: 96 brownies; 672 brownies
WE DO: 105 wine glasses; 630 wine glasses
YOU DO: 90 vases; 810 vases
Card \#17
I DO: 2.1 ft .
WE DO: 4.2 ft .
YOU DO: 6.2 ft .
Card \#18
I DO: $13 \frac{1}{2}$ miles; 13.5 miles
WE DO: $18 \frac{1}{4}$ peanut bags; 18.25
YOU DO: $20 \frac{1}{4} \mathrm{lbs}$ of flour; 20.25
Card \#19
I DO: $\$ 18.40$
WE DO: \$20.46
YOU DO: \$10.56
Card \#20
I DO: 6 ways; $1 \times 32 ; 32 \times 1 ; 2 \times 16 ; 16 \times 2 ; 4 \times 8 ; 8 \times 4$
WE DO: 6 ways; $42 \times 1 ; 1 \times 42 ; 2 \times 21 ; 21 \times 2 ; 6 \times 7 ; 7 \times 6$
YOU DO: 6 ways; $50 \times 1 ; 1 \times 50 ; 2 \times 25 ; 25 \times 2 ; 5 \times 10$; $10 \times 5$
Card \#21
I DO: May $5^{\text {th }}$
WE DO: August $20^{\text {th }}$
YOU DO: September $23^{\text {rd }}$
Card \#22
I DO: $3^{7 / 8}$ pies
WE DO: $4 \frac{2}{3}$ pizzas
YOU DO: $3 \frac{3}{4}$ cakes
Card \#23
I DO: $82 \% ; 18 \%$
WE DO: 79\%; $21 \%$
YOU DO: 33\%; 67\%
Card \#24
I DO: 7.14 miles
WE DO: 12.27 minutes
YOU DO: 1.43 hours
Card \#25
I DO: \$8, \$24, \$26
WE DO: \$42; \$8
yOU DO: \$220; \$80
Card \#26
I DO: 6,928
WE DO: 3,015
YOU DO: 4,630
Card \#27
I DO: \$25.52; \$74.48
WE DO: \$30.89; \$19.11
YOU DO: \$75.99; \$24.01
Card \#28
I DO: 16 hours
WE DO: 21 hours
YOU DO: 33 letters
Card \#29
I DO: $1^{1} / 10$ hours WE DO: ${ }^{29} / 35$ of a bucket YOU DO: $1^{7 / 15}$ gallons
Card \#30
I DO: 2, 2 3/8
WE DO: 2 8/10, 3 4/10
YOU DO: 3 5/12, 4 1/12
Card \#31
I DO: Bonnie, Rex, Yuri
WE DO: Blair, Sherri, Alvin
you DO: Harvey, Stella, Charlie
Card \#32
I DO: \$1,320.90
WE DO: \$272.95
YOU DO: \$96.60
Card \#33
I DO: 8:35 p.m.
WE DO: 9:25 a.m.
YOU DO: 9:20 p.m.
Card \#34
I DO: $88 \% ; 12 \%$
WE DO: $85 \%$; $15 \%$
YOU DO: 63\%, 38\%
Card \#35
I DO: 1,861 miles
WE DO: 669 miles YOU DO: 2,700 miles
Card \#36
I DO: $\$ 483.60$
WE DO: $\$ 464.55$
YOU DO: \$283.72
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[^0]:    http://ies.ed.gov/ncee/wwc/pdf/practiceguides/rti_math_pg_042109.pdf

