FIRST GRADE

BOARD MATH

BANK OF PROBLEMS

Compiled by members of the Math Cadre

October, 2014

**OPERATIONS AND ALGEBRAIC THINKING**

**Addition and Subtraction (1 problem) – OA.1, OA.2, OA.5, OA.6**

***Willis had \_\_\_ marbles. His friend gave him \_\_\_ more for his birthday. Write a number sentence to show how many marbles Willis has now.***

***Torrance had \_\_\_ stickers. He shared them with his friends and now he has \_\_\_ stickers. Write a number sentenced to show how many stickers Torrance gave to his friends.***

***Armando has \_\_\_ toys. His friend has \_\_\_ toys. How many more/fewer toys does Armando have than his friend?***

***Mrs. Sanchez has 5 cats, 4 dogs, and 6 birds. How many pets does she have altogether? Find the sum.* (Three 1-digit numbers sums less than 20.)**

***What addition facts can I use to help me find what numbers come next if we are counting by 2’s?* (ex: 8, 10, 12, \_\_\_, \_\_\_)**

***Complete the pattern and identify the addition facts that helped you.* (List a number pattern counting by 2’s, 5’s, or 10’s, and have numbers missing out of *the middle).***

***Identify and extend the pattern.* (Use a number pattern counting by 2’s, 5’s, or 10’s.)**

***Write \_\_\_ as a number sentence.* (Suggestion: leave this problem up with the same number all week so that students will see that there are many number sentences that equal the same number.)**

***Complete this number sentence: \_\_\_ tens and \_\_\_ ones = 53***

***Write this number in standard form.* (Use base ten blocks to show a number.)**

***Write \_\_\_ in expanded notation.* (Use a 2-digit number.)**

***Find the sum.* (Sums up to 20, fluency with sums up to 10). *What strategy did you use to help you solve?***

***Use number bonds to help you find the sum/difference.***

***Use making a ten strategy to help you find sum/difference.***

**Properties/Relationship of Addition & Subtraction (2 problems)—OA.3, OA.4**

***How does knowing 3 + 8 = 11 help us solve 8 + 3 =?***

***Use making a ten strategy to solve 2 + 6 + 4 = ?***

***Is this equation true, why or why not? 2 + 6 + 4 = 10 + 2***

***Write the related facts for these numbers.***

***Identify a fact that is in the same fact family as \_\_\_\_\_\_\_\_ (Ex: 9 – 3 = 6)***

***What number sentence can you use to check this answer 11 + 5 = 16?***

***What is the inverse of 11 + 5 = 16***

**Addition & Subtraction Equations (2 problems) – OA.7, OA.8**

***What operation will make this number sentence true? (EX: 7 \_\_ 4 = 11)***

***Which of these equations are true or false. Explain your thinking.***

***6 = 6***

***7 = 8 – 1***

***5 + 2 = 2 + 5***

***4 + 1 = 5 + 2***

***Determine the unknown number.***

***8 + ? = 11***

***5 = - 3***

***6 + 6 = ?***

***What number makes this equation true?***

**NUMBERS IN BASE TEN**

**Counting Sequence (1 problem) – NBT.1**

***Write forty-five in standard form.***

***How many \_\_\_ are there?* (Ex: draw a group of squares randomly, not in a pattern)**

***Write 45 in word form.***

***Count from 88 to 105.***

***Write the numeral represented below.* (Display a number between 0-120 with base ten blocks.)**

**Place Value (2 problems) – NBT.2a, b, c, NBT.3**

***Sara has \_\_\_ eggs. She wants to put 10 in each. How many baskets will she fill and how many eggs will be left over?***

***Write \_\_\_ in expanded notation.* (Use a 2-digit number.)**

***Represent this picture in a number sentence.* (Draw stacks of blocks with 10 in each pile except the last pile.)**

***Owen stacked his books in groups of ten. He has \_\_\_ stacks and \_\_\_ books left over. How many books does Owen have?***

***Group \_\_\_\_ into tens and ones.***

***Show \_\_\_ in the ten frame.***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |

***What symbol will make this number sentence true?***

***Which number sentence is true?* (only list 2 choices*)***

***What number will make this number sentence true? \_\_\_>85* (Suggestion: leave this problem up with the same number all week so students will see that there is more than one answer.)**

***Put these numbers in order from least to greatest*. (list three 2-digit numbers)**

***Compare these two numbers using symbols.***

**Addition & Subtraction (3 problems) – NBT.4, NBT.5, NBT.6**

***Find the sum. Is there a subtraction fact that helped you solve this?* (2-digit number + 1 digit number and 2-digit number + multiple of 10)**

***What number is 10 less than \_\_\_?***

***What number is 10 more than \_\_\_?***

***What number is 1 less than \_\_\_?***

***What number is 1 more than \_\_\_?***

***There are 54 cards in the basket. 10 of them are used. How many are left?***

***Find the difference. Is there an addition fact that helped you solve this?* (multiples of 10 between 10 and 90 – multiples of 10 between 10 and 90)**

**MEASUREMENT AND DATA (MD)**

**Length (1 problem ) – MD.1, MD.2**

***Compare the two lines to the length of this pencil.***

***Order these objects by length.* (3 objects)**

***How long is this line?* (Draw a line and measure with a nonstandard form of measurement; unifix cubes, paper clips, etc.)**

**Time (1 problem rotated with Rep/Int Data) – MD.3**

***What time is on the clock? (Show ½ hour increments)***

**Represent/Interpret Data (1 problem rotated with Time) – MD.4**

**(Survey students or copy and post a tally chart, bar graph, picture graph from the SS or Sci book that has up to 3 categories.)**

**Ask questions about that chart/graph similar to these:**

***How many moose, bears, and wolves live in Alaska? Which group has more/less? How many more/fewer than \_\_\_\_?***

***What animal is seen most often in Africa? How do you know that?***

**GEOMETRY**

**Shapes and Attributes (1 problem) – G.1, G.2, G.3**

***Draw a pair of shapes that both have 4 sides.***

***What are the common attributes of the items below?***

***How are the items below sorted?***

***What is another way to sort these items?***

***Combine these shapes to form a new shape.* (Combine 2-D shapes or combine 3-D shapes).**

***What difference shapes ca you create with 6 small triangles?***

***How could you and a friend share the chocolate candy bar? Label the fractional part you and your friend would each have.* (Draw a rectangle, only 2 friends or 4 friends. Focus on equal shares.)**

**MATH REASONING (1 problem)**

**(NOTE: If problems require several steps, such as a MARS task, you can do one step per day until the problem is solved.)**

**Teacher can select word problems to meet student needs from the textbook, MARS tasks, problems of the day, etc.**

***Solve the problem using the PUSD Problem Solving Strategy:***