

COMP Elementary – Summer 2015 Day 6

Read the following three problems and explain how they are alike and different.

- A. Three marbles were in a cup. Someone put two more marbles in the cup. How many marbles are in the cup now?

- B. Roger put seven marbles in a cup. Marcy put some more marbles in the cup. Then there were fifteen marbles. How many marbles did Marcy put in?

- C. Some marbles were in a cup. Shawn put 38 more marbles in the cup. Then there were 74 marbles. How many marbles were in the cup before Shawn put his marbles in the cup?



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Read the following three problems and explain how they are alike and different.

X. Fourteen cupcakes were on the tray. Kendra ate some of them. Then there were nine. How many cupcakes did Kendra eat?

Y. Some small cupcakes were on a tray. Blanca ate eleven of them. Then there were forty three small cupcakes. How many small cupcakes were on the tray before?

Z. Four cupcakes were on the tray. Bart ate three of them. How many cupcakes are on the tray now?

Looking at both sets of problems A, B, C and X, Y, Z pair them up and explain why you feel they are most alike:



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Read the following four problems and explain how they are different from A, B, C and X, Y, Z.

Q. Four brown puppies and one black puppy are in the dog house. How many puppies are in the dog house?

R. Twelve puppies are in the kennel. Three are black and the rest brown. How many puppies are brown?

S. Twelve puppies are in the kennel. Some are black and seven are brown. How many puppies are black?

T. The kennel has seven puppies. How many can be put in the green pen and how many can be put in the orange pen?



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Read the following six problems and explain how they are different from the previous problems.

- D. John has 8 oranges and Mark has 13. How many more oranges does Mark have than John?

- E. John has 8 oranges and Mark has 13. How many fewer oranges does John have than Mark?

- F. Mark has 15 more oranges than John. John has 4 oranges. How many oranges does Mark have?

- G. John has 15 fewer oranges than Mark. John has 4 oranges. How many oranges does Mark have?

- H. John has 14 more oranges than Mark. John has 26 oranges. How many oranges does Mark have?

- I. Mark has 14 fewer oranges than John. John has 26 oranges. How many oranges does Mark have?



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Look through the CCSSM and find an example of when the expected proficiencies with the **standard algorithms** for addition, subtraction, multiplication, and division are declared. Write down the standards identifying information.

Look through the CCSSM and find an example of how its language indicates the importance of student derived and represented ways of doing mathematics come prior to learning about the standard algorithm. Write the entire standard and identify the significant words by underlining them.



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“Articulating general claims is essential to investigating generalizations. As students put their ideas into words, they clarify their ideas, develop common language, and come to a common understanding of exactly what their general claim is. Once they have agreed what it is they are trying to prove, they can work together to justify their claim.”

- Russell, Shifter, Bastable (2011)

Read page 38 to page 46.

As you are reading, highlight, underline, or make note of things you find significant or meaningful.

When your group is finished, take some time to discuss these things you highlighted, underlined, or made a note of.

NOTES:



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Focus Questions #1 and #3 (pg. 51)

1. Consider Mr. Williams' grade 1 classroom narrative in which he works with his class on noticing and articulating the commutative property of addition.

- What do you notice about the questions that Mr. Williams asks?
- What is the impact of his questions on his students?
- What ideas about posing questions does this bring up for you as you consider your own teaching practice?

3. In the grade 3 classroom narrative, Ms. Kaye's students identify number patterns as they look at sequences of arithmetic expressions. However, finding number patterns is not the end of the process.

- What happens in this case, after the patterns have been noted?
- What math ideas are the focus of the work and how are those ideas related to noticing patterns?
- What questions does this raise about the math work you want your students to take on?



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NAME:

Take a few moments to reflect on our time of thinking and learning today.

-- Jot down the meaningful and significant things you thought about.

-- Jot down the ways you thought mathematically and pedagogically.

-- Jot down how you contributed to our shared community of professionals.

