COMP Elementary – Summer 2015 Day 4

"During the first part of the school year, it is critical to establish a classroom community in which students' mathematical thinking is valued, students are willing to publically try out incomplete ideas, and students listen to and build on each other's thinking."

- Russell, Shifter, Bastable (2011)

Read page 9 to page 15.

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 Question #1 (pg. 23)

In the first section of chapter 2, we visit four teachers' classrooms (Ms. Olana, Ms. Kaye, Ms. Diaz, and Ms. Rogers).

- Locate a particular passage for each teacher in which you notice the teacher working to help her students learn how to have mathematics discussions.

- Take notes on the specific actions or words of the teacher including the impact on students, if any.

- What are the implications of these teacher moves for your own classroom?

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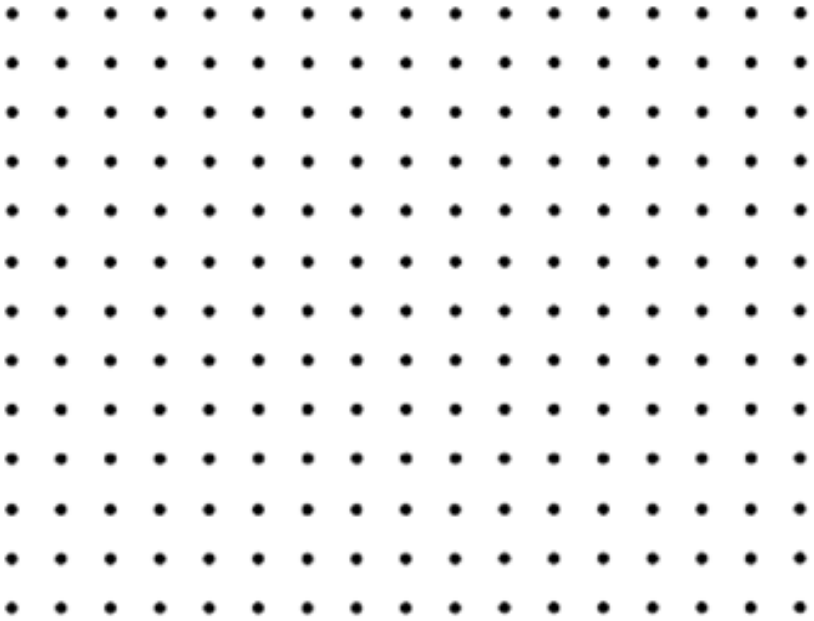
Using the 13x17 dot array, find an efficient way to know the number of dots. Write your solution using a (some) number sentence(s).



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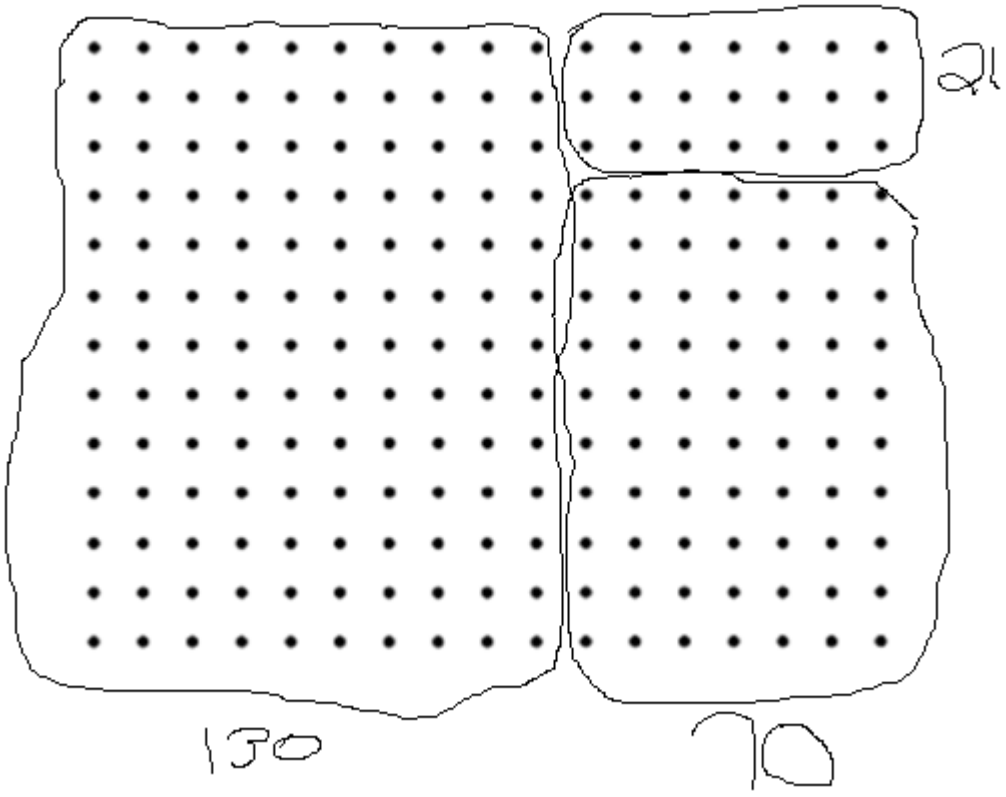
As students were working on different two digit times two digit dot arrays the teacher asked them to be thinking of a way to find the answer just using the meaning of the digits and then represent it using the dot array.

Use Jorge's dot array to explain how he multiplied the digits.



$$\begin{array}{r} 17 \\ \times\ 13 \\ \hline \end{array}$$

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Using an Area Model for Multiplication

- On centimeter grid paper, draw a 12 cm by 7 cm rectangle.

  How does this rectangle relate to the multiplication problem 12 × 7? Be as specific as you can about the relationship between the rectangle, the factors, and the product.

  Use your rectangle and base-ten blocks to find the product of 12 × 7 in at least two different ways.

  Does one of your ways make use of the structure of our base-ten number system? If so, explain how. If not, find a way that does make use of the structure of our base-ten number system and explain how.

Using an Area Model for Multiplication (continued)

- On centimeter grid paper, draw a 23 cm by 16 cm rectangle. Use base-ten blocks to find the product of 23 × 16 in a way that makes use of the structure of our base-ten number system.

- How do these area models for multiplication relate to the dot arrays? In what ways are they similar and in what ways are they different?

- How do these area models for multiplication relate to the algorithms that are used for multiplication?

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.