Pulse check…

- With your neighbors…
- How are your students doing in math?
- What is the data/evidence that you have about this?
- Where do your students need the most support?
- What are you looking to get out of this experience?

Pencil groupings

- A pencil packaging company puts 10 pencils in a box, 10 boxes in a bin, and 10 bins in a basket.
- Draw what you think a box, a bin, and a basket, look like. Try to draw close to scale/size. Compare your drawing with your neighbor.

How many pencils?

- How much of a basket is filled up by 1 bin?
- How much of a basket is filled up by 1 box?
- How much of a basket is filled up by 1 pencil?
- How many pencils are in a half of a bin/box/basket?
- How many times more pencils in a bin than a box?

How many pencils?

- What was the math involved? What did you have to know?

How many pencils?

- How many times more pencils can you put in a basket than a box?
- How many times more pencils can you put in a bin than a box?
- What fraction of pencils can you put in a box compared to a bin?
- What fraction of pencils can you put in a box compared to a basket?

5.nbt.2

- What is the expectation?
- 6.3 x 10^3 / 10^2
- 6300
- 6300 / 10^2
- 6,300 / 10 x 10

Unusual Baker Task

•Solve this task

•What strategies might students use?

Modifications of this task for your students?

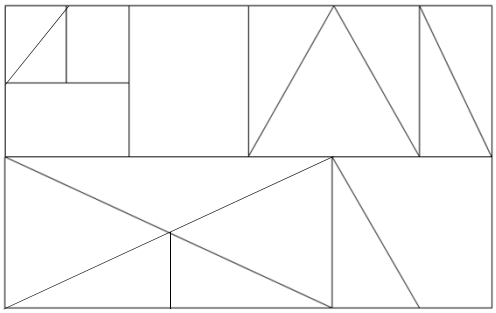
- What are students asked to do?
- What Standards are embedded?
- How would your current students do on this?

Fractions of the Neighborhood

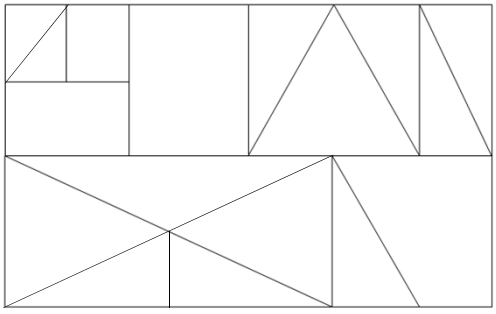
•This is a sky view of a neighborhood.

•If the total area is 1, what is the fractional value of each section?

The picture is a neighborhood. For each section find the fractional value of the whole neighborhood.



The picture is a neighborhood. For each section find the fractional value of the whole neighborhood.



Equations…

•What equations could you (did you) write for the task that you just solved?

•How would you modify this for Grade 5?

Pattern Block Fractions

Pattern Block Fractions

- If 2 joint hexagons =1 what is the value of….
- A triangle
- 2 triangles
- 2 blue rhombi
- A trapezoid
- A hexagon joined with a triangle
- A hexagon joined with a rhombus

More Pattern Block Explorations

- If the hexagon joined with the triangle = 1, come up with 3 designs that are greater than ½ but less than 1.
- If the hexagon joined with the trapezoid = 1, come up with 3 designs greater than ½ but less than 1.
- If the blue rhombus = 1, what is the value of the red trapezoid?
- If the red trapezoid = 1, what is the value of 2 connected blue rhombi?

Pattern Block Explorations

- What Standards?
- What operations with fractions are at work?
- Modified from here- http://math.rice.edu/~lanius/Patterns/

Sugar Scenario

- There is 2 and 2/3 cups of sugar in the bowl. If Mrs. Santos puts 3 and 3/4 cups of sugar in the bowl how much sugar is now there?
- In order to make cookies for a party Mrs. Santos needs 7 and 1/6 cups of sugar. Does she have enough? How much extra does she have or how much more does she need?
- Use pictures and equations for each part of the task.

- 1 and 1/6 - 5/12
- 1 and 2/12 – 5/12

1 and 2/12 – 5/12

5/12 + 7/12 = 1
1 + 2/12 = 1 and 2/12

Sugar Scenario

- Approaches?
- Representations?

Sugar Scenario

- How does the process of finding common denominators figure into this task?
- Look at the unpacking document, 5.NF.1
  - What are possible strategies or ways to solve these types of tasks?
- 3, 6, 9, 12, 15, 18, 21, 24
- 4, 8, 12

Sugar Scenario

- If we were adding 3/8 and 5/12 based on the strategy in 5.NF.1 what would the addition equation with equivalent fractions look like?
- Is this efficient?

Questions?

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