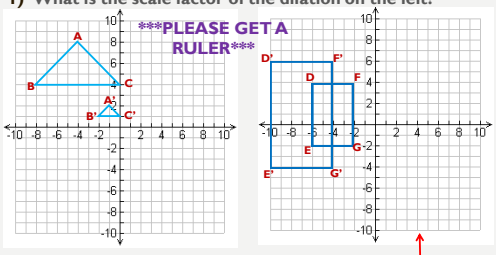
WARMUP 2/ $(9 + 10 + 1,000,000^0 + \cos 0^o)$

Created by Ms. Bolus

1) What is the scale factor of the dilation on the left?



2) How could you prove that this was NOT a dilation?

TOMORROW IS ENRICHMENT WEDNESDAY

- If you want to do a retake, **YOU MUST TELL ME TODAY**
- People that are missing some ALEKS (more than ~15 min) will be required to report to the retake room.
- If you don't show up, you will be written up

TRANSFORMATIONS QUIZZES

- May retake just part 1 or just part 2
- Extra Practice Worksheet available!!!

ANGLES QUIZ RETAKE

- Deadline is **TOMORROW!!!**
- **Let me know if you want to be on the retake list.**

SCALE FACTOR FORMULA

- **Original x (scale factor) = Image**
- **Therefore:**
- $Scale\ Factor = \frac{side\ length\ of\ IMAGE}{side\ length\ of\ ORIGINAL}$

ON YOUR FOURTH GRAPH:

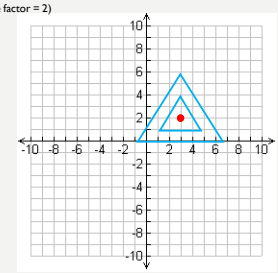
- Original coordinates: **H(-2, 3) I(2.5, 3)**

1) **Perform a dilation using k = 3.**
2) **Find the length of the original segment and the image segment and use the scale factor formula to verify the scale factor.**

HOW COULD I DO DILATIONS FROM DIFFERENT POINTS BESIDES (0, 0)?

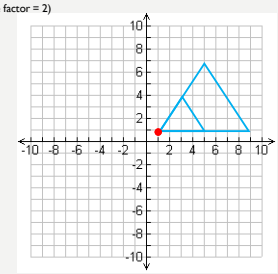
Center of dilation = middle of the shape

(Scale factor = 2)



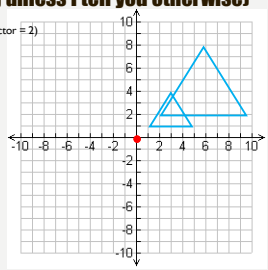
Center of dilation = vertex of the shape

(Scale factor = 2)



Center of dilation = origin (What we will be doing unless I tell you otherwise)

(Scale factor = 2)

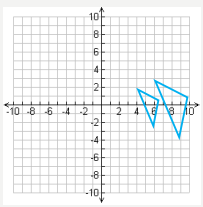


FRACTIONS!!!

- Multiply $\frac{2}{5}$ by 13 and write your answer as a mixed number.
- $\frac{2}{5} \cdot 13 = \frac{2}{5} \cdot \frac{13}{1}$
- $= \frac{26}{5} = 5\frac{1}{5}$

FRACTIONS!!!

- Graph triangle **T(6, 3) R(10, 1) I(9, -4)** and dilate it using a scale factor of $\frac{2}{3}$.



(If the image looks like the same shape as the preimage, you can be confident you did it correctly!)

WHAT WAS THE SCALE FACTOR?

- I have a 5 inch by 7 inch photo of a dog that I want to blow up to fit my frame that is $8\frac{3}{4}$ inches by $12\frac{1}{4}$ inches. What was the scale factor?
  - A) 1.5
  - B) 1.75
  - C) 1.8
  - D) 2.25

Talk to your trio about how you would solve this problem.

B

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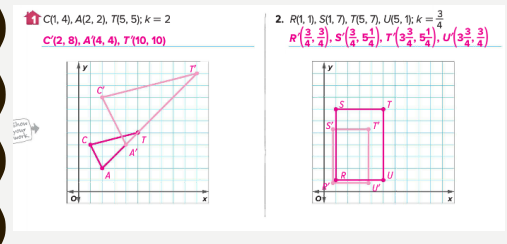
$$\frac{8\frac{3}{4}}{5} = 8\frac{3}{4} \div 5 = \frac{35}{4} \div \frac{5}{1} = \frac{\cancel{35}^{7}}{4} \cdot \frac{1}{\cancel{5}_{1}} = \frac{7}{4} = 1\frac{3}{4} = 1.75$$

PLEASE DO #3 AND #4 ON PAGE 491

P.491 (1 – 4)



3. A graphic designer created a logo on $8\frac{1}{2}$- by 11-inch paper. In order to be placed on a business card, the logo needs to be $1\frac{7}{10}$ inches by $2\frac{1}{5}$ inches. What is the scale factor of the dilation? (Example 3)

$\frac{1}{5}$

4. Darian wants to build a regulation-size pool table that is 9 feet in length. The plans he ordered are 18 by 36 inches. What is the scale factor of the dilation he must use to build the regulation pool table? (Example 3)

3

DILATIONS WITHOUT A GRAPH

- p. 485 #3 (with me)
- P.485 #4 (by yourself)