

Similarity Review Worksheet

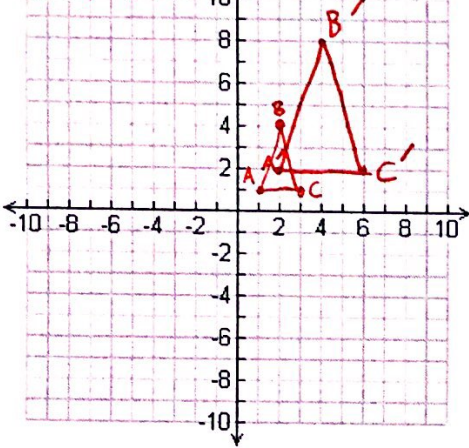
Name: KEY

Level 1 – One of each type (Easy)

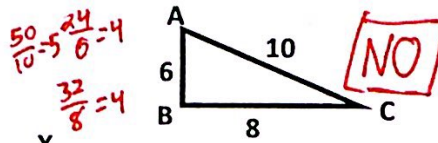
1) Graph the original figure, then perform a dilation using the given scale factor.

A(1, 1) B(2, 4) C(3, 1), $k = 2$

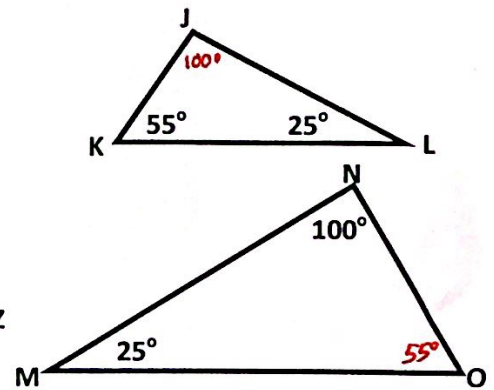
(2, 2) (4, 8) (6, 2)



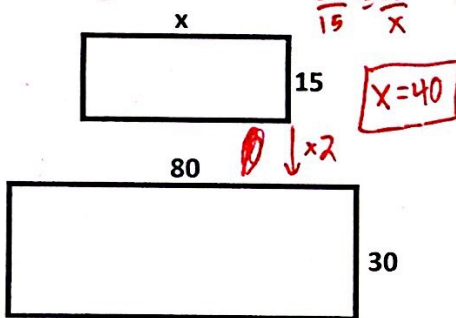
2) Are they similar? Show your work either way. If they are similar, write a similarity statement.



3) Are they similar? Show your work either way. If they are similar, write a similarity statement.

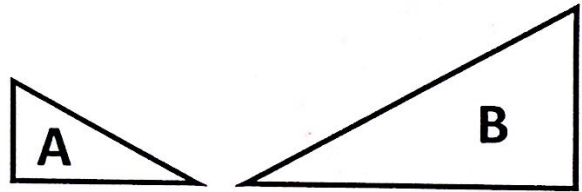


4) The figures are similar. Find the missing value.



5) Which sequence of transformations will take figure A onto figure B?

- A. Translation, then dilation
- ☒ B. Reflection, then dilation
- C. Rotation, then dilation

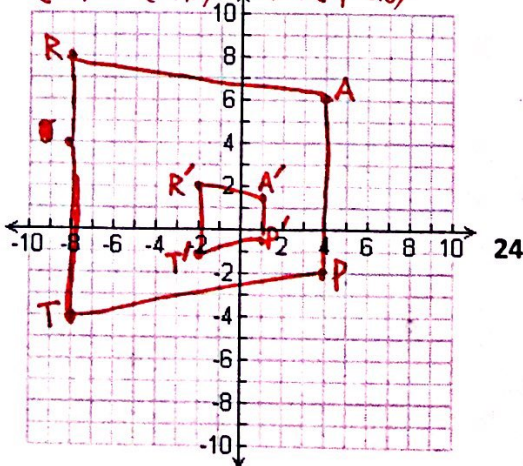


Level 2 – One of each type (Medium)

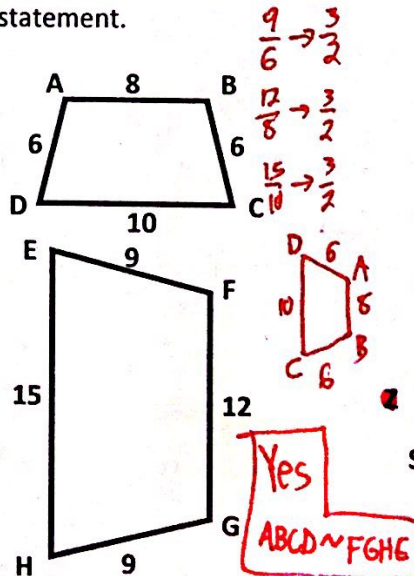
6) Graph the original figure, then perform a dilation using the given scale factor.

T(-8, -4) R(-8, 8) A(4, 6) P(4, -2), $k = \frac{1}{4}$

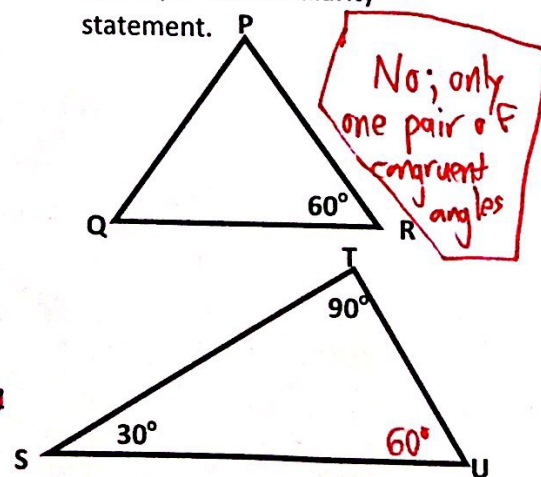
(-2, -1) (-2, 2) (1, 1.5) (1, -0.5)



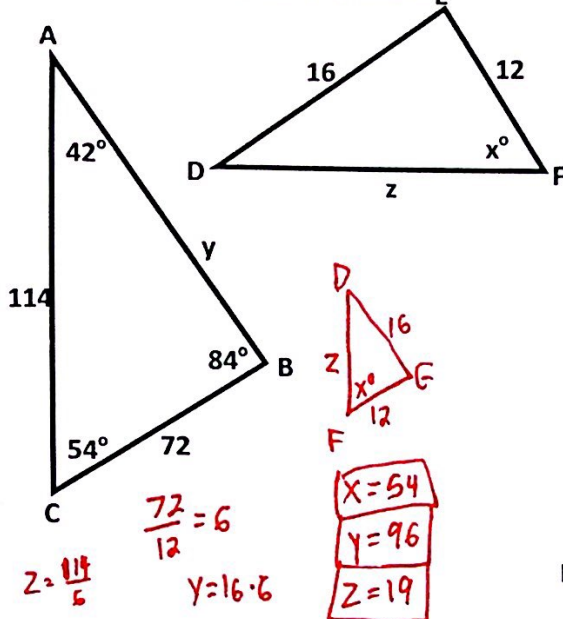
7) Are they similar? Show your work either way. If they are similar, write a similarity statement.



8) Are they similar? Show your work either way. If they are similar, write a similarity statement.

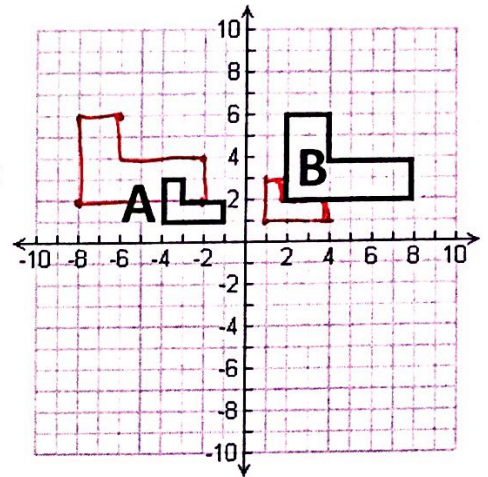


9) $\triangle ABC \sim \triangle DEF$. Find x , y , and z .



10) Which sequence of transformations will take figure A onto figure B? (There are two that work!)

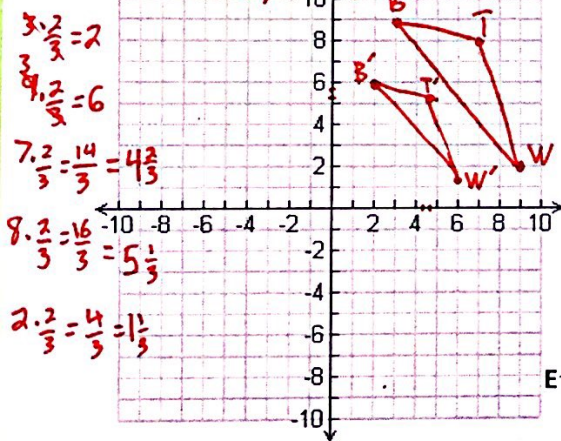
- A Translation 5 units right, then dilation using a scale factor of 2
- B Translation 5 units right, then dilation using a scale factor of 3
- C Reflection across the x-axis, then dilation using a scale factor of 2
- D Translation 6 units right and 1 unit up, then dilation using a scale factor of 1.5
- E Dilation using a scale factor of 2, then translation 10 units right



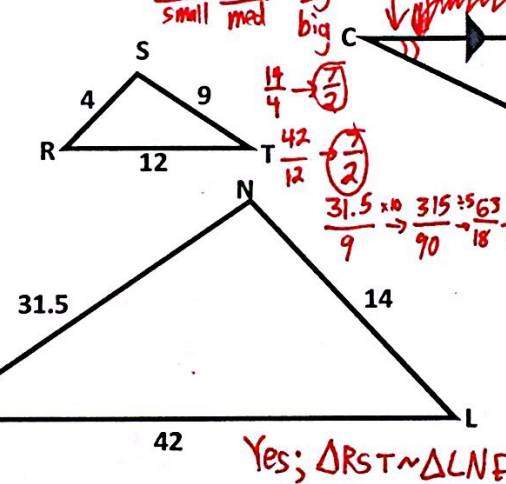
Level 3 – One of each type (Hard)

11) Graph the original figure, then perform a dilation using the given scale factor.

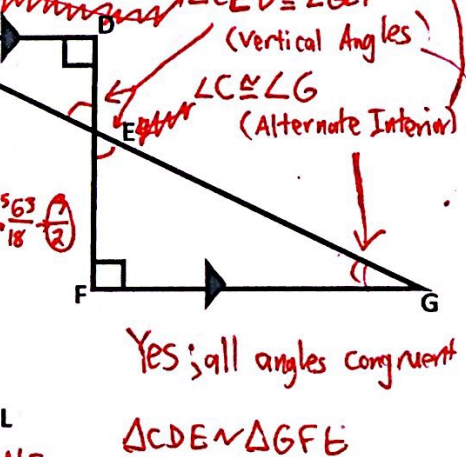
$B(3, 9)$ $T(7, 8)$ $W(9, 2)$, $k = \frac{2}{3}$



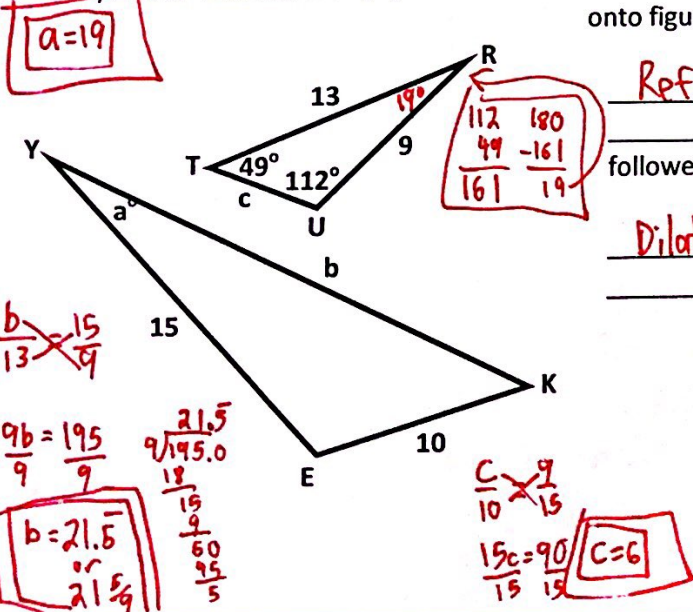
12) Are they similar? Show your work either way. If they are similar, write a similarity statement.



13) Are they similar? Explain your reasoning. If they are similar, write a similarity statement.

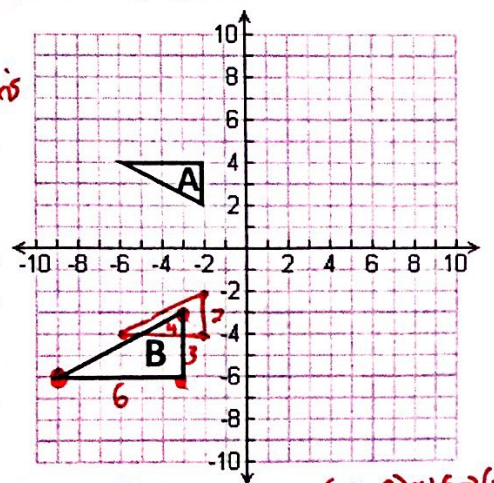


14) $\triangle TUR \sim \triangle KEY$. Find a , b , and c .



15) Which sequence of transformations will map figure A onto figure B?

Reflection across x-axis
followed by
Dilation; $k = 1.5$



Handwritten calculations:

$$\frac{6}{4} = \frac{3}{2} = 1.5$$

$$(-2, 2) \times 1.5 \rightarrow (-3, 3)$$

$$(-4, 2) \times 1.5 \rightarrow (-6, 3)$$

$$(-4, 4) \times 1.5 \rightarrow (-6, 6)$$