

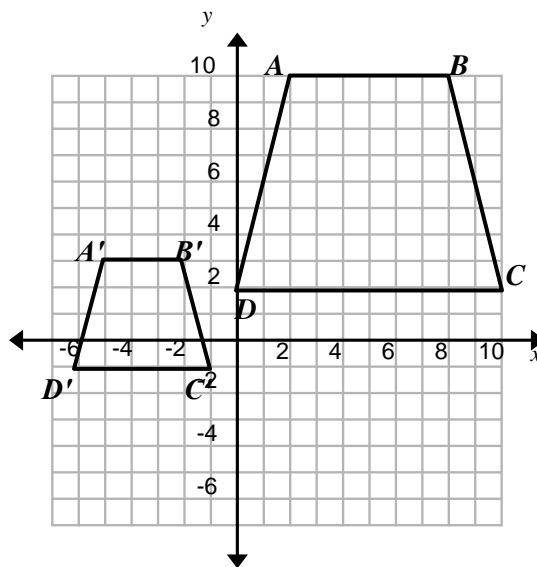


## Dilations & Similarity #2

1. What does similarity mean? \_\_\_\_\_
2. What does the symbol  $\sim$  mean? \_\_\_\_\_

3. What is the missing number?  $\frac{x}{35} = \frac{48}{56}$   
 How do you know?

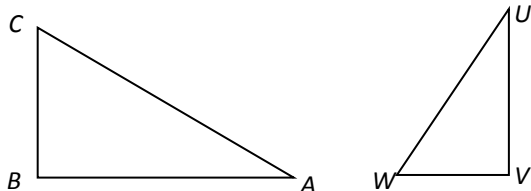
4.  $ABCD \sim A'B'C'D'$ . What transformation(s) would show this to be true?



5. What line segment's measure would be needed to complete the numerator and make the following equation true?

$$\frac{AB}{CD} = \frac{?}{C'D'}$$

6. Name the corresponding sides of  $\triangle ABC$  to  $\triangle UVW$ .

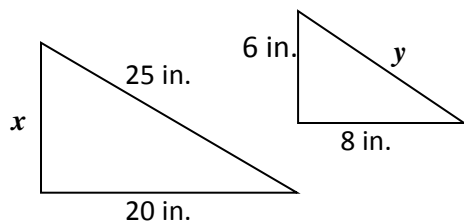


$\overline{AB} \sim$  \_\_\_\_\_

$\overline{BC} \sim$  \_\_\_\_\_

$\overline{CA} \sim$  \_\_\_\_\_

7. The pair of triangles below are similar. What is the value of  $x$ ?



Proportion \_\_\_\_\_

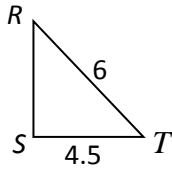
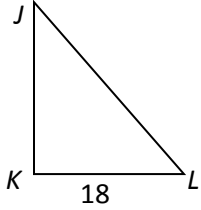
Solution \_\_\_\_\_

8. Using the same figures above, what is the value of  $y$ ?

Proportion \_\_\_\_\_

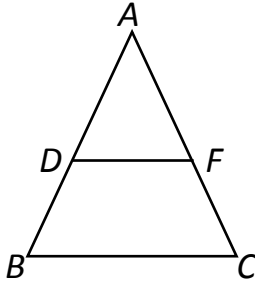
Solution \_\_\_\_\_

9.  $\triangle JKL$  is similar to  $\triangle RST$ . What is the value of  $\overline{JL}$ ?



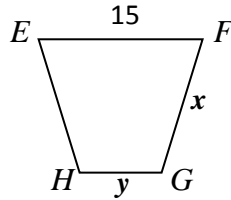
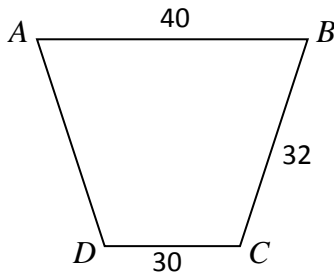
Proportion \_\_\_\_\_ Solution \_\_\_\_\_

10.  $\triangle ABC \sim \triangle ADF$ . If  $m\overline{AB} = 42$ ,  $m\overline{AC} = 30$ , and  $m\overline{AD} = 14$ , then find  $m\overline{AF}$ .



Proportion \_\_\_\_\_ Solution \_\_\_\_\_

11. Polygon  $ABCD$  is similar to polygon  $EFHG$ . Using the values in this diagram, find  $x$ .



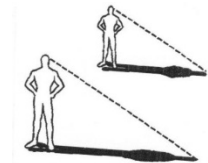
Proportion \_\_\_\_\_ Solution \_\_\_\_\_

12. Find the value of  $y$  in problem #11.

Proportion \_\_\_\_\_ Solution \_\_\_\_\_

13. At the same time of day, a man who is 10 feet tall casts an 11-foot shadow and his son casts a 2.2 foot shadow. What is the height of the man's son?

Proportion \_\_\_\_\_ Solution \_\_\_\_\_



14. If you know two figures are similar but not congruent, what do you know about the measures of the side lengths and angles?