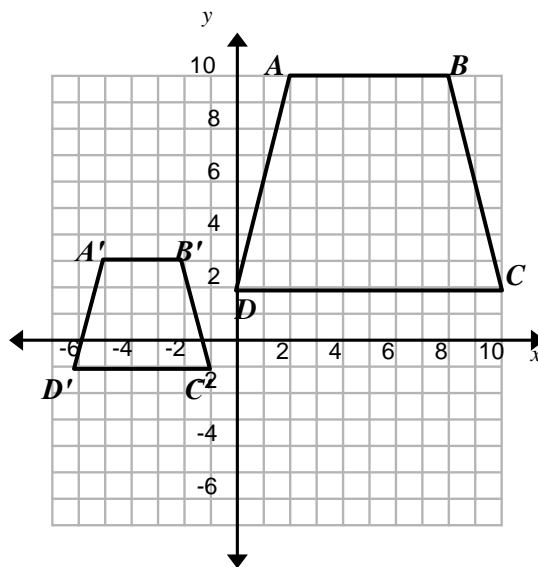




Dilations & Similarity #2

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?

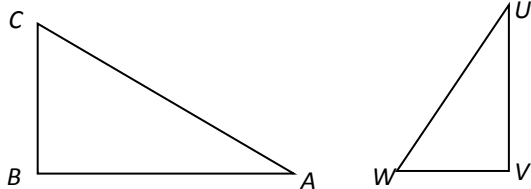
4. $ABCD \sim A'B'C'D'$. What transformation(s) would show this to be true?



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 $\triangle UVW$.

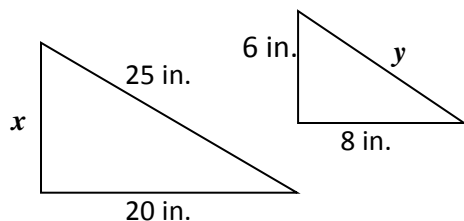


$\overline{AB} \sim \underline{\hspace{2cm}}$

$\overline{BC} \sim \underline{\hspace{2cm}}$

$\overline{CA} \sim \underline{\hspace{2cm}}$

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



Proportion _____

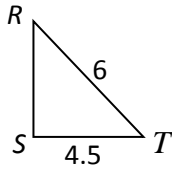
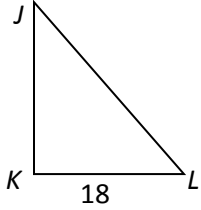
Solution _____

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

Proportion _____

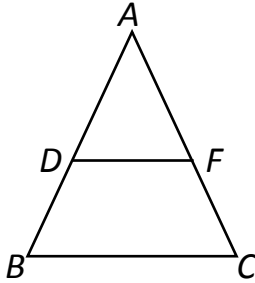
Solution _____

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



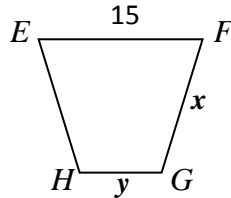
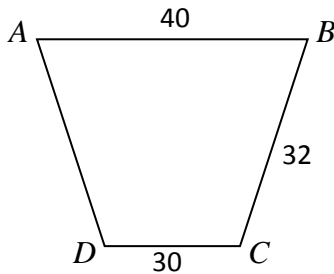
Proportion _____ Solution _____

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 .



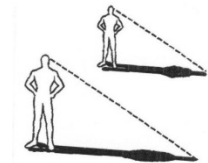
Proportion _____ Solution _____

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?