



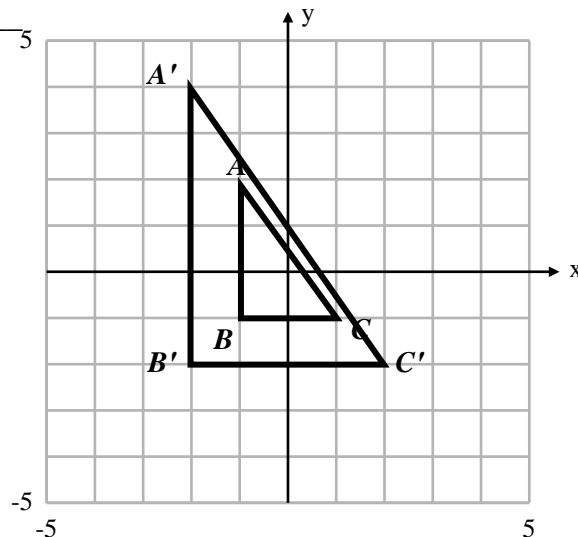
Dilations & Similarity #1

1. What does similarity mean? _____

2. What does the symbol \sim mean? _____

3. Name the transformation(s) that show that $\triangle ABC \sim \triangle A'B'C'$.

4. Using the Pythagorean Theorem, find the measurement of \overline{AC} and $\overline{A'C'}$.



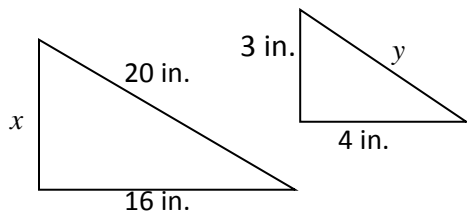
5. Replace the side lengths that correspond to each segment to show the ratios are proportional.

$$\frac{AB}{BC} = \frac{A'B'}{B'C'}$$

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6. The pair of triangles in the figure is similar. What is the value of x ?



Proportion _____

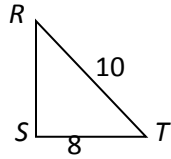
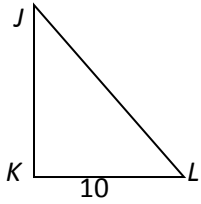
Solution _____

7. Using the same figure above, what is the value of y ?

Proportion _____

Solution _____

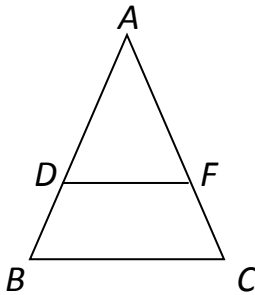
8. $\triangle JKL$ is similar to $\triangle RST$. What is the value of \overline{JL} ?



Proportion _____

Solution _____

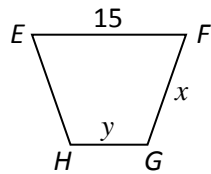
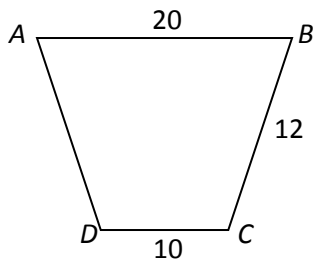
9. $\triangle ABC \sim \triangle ADF$ (\sim means “similar to”). If $\overline{AB} = 15$, $\overline{AC} = 9$, and $\overline{AD} = 5$, then find \overline{AF} .



Proportion _____

Solution _____

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



Proportion _____

Solution _____

11. Using the diagram above, find the value for y .

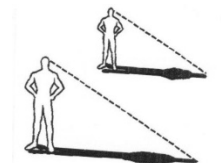
Proportion _____

Solution _____

12. At the same time of day, a man who is 6 feet tall casts an 8-foot shadow and his son casts a 4 foot shadow. What is the height of the man’s son?

Proportion _____

Solution _____



13. Draw two similar quadrilaterals and label the sides and the angles to show they are similar.