

January 15, 2015 ^{5th}
^{6th}
Starter

Subtract each. Answers should be in simplest form.

not today!

1/15 - Proportions using Similar Figures

"Similar" means the figures...

- ~ have the same shape
- ~ can be different sizes
- ~ are proportional



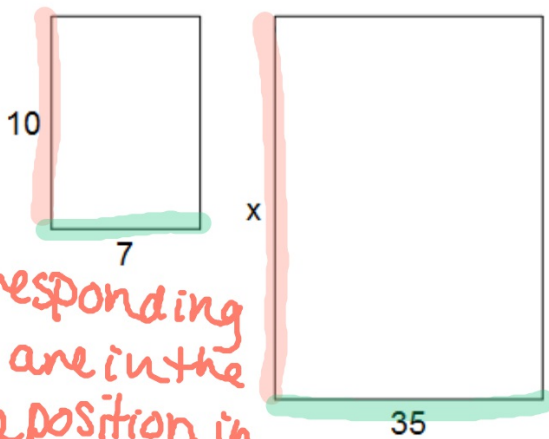
Which of these moves result in similar shapes?

Similar
Slide
Zoom in
Zoom out
Rotate
Flip

NOT Similar
Horizontal Stretch
Vertical stretch

If two figures are similar, you can find the missing side measurements since they are proportional!

Find the missing measurement.

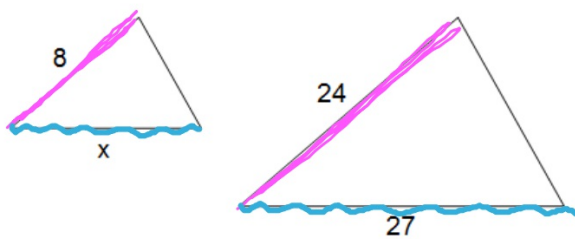


Corresponding
Sides are in the
same position in
both shapes.

$$\frac{10 \cdot 5}{7 \cdot 5} = \frac{x}{35}$$

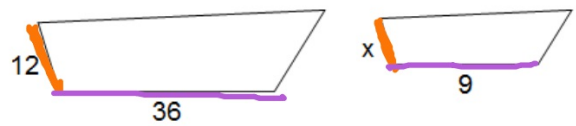
$$50 = x$$

Find the missing measurements of these similar figures.



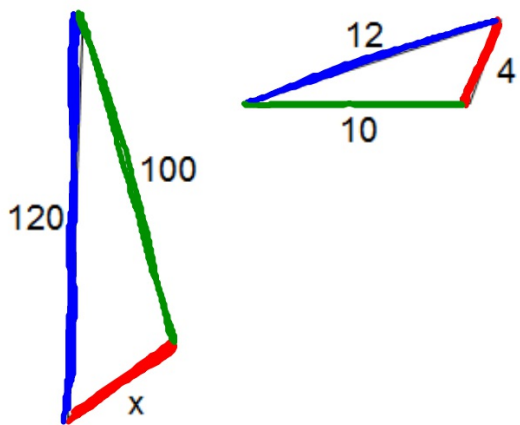
$$\frac{8 \cdot 3}{x \cdot 3} = \frac{24}{27}$$

$$\begin{array}{r} 3x = 27 \\ \hline 3 \quad 3 \\ x = 9 \end{array}$$



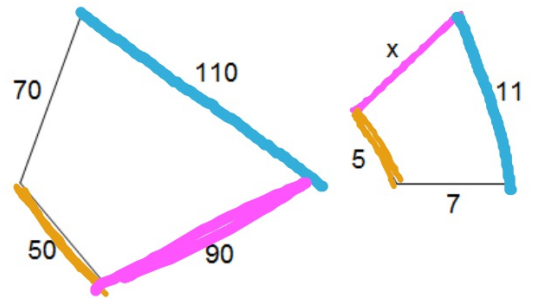
$$\frac{12}{36} = \frac{4 \cdot x}{4 \cdot 9}$$

$$\begin{array}{r} 12 = 4x \\ \hline 4 \quad 4 \\ 3 = x \end{array}$$



$$\frac{x}{120} = \frac{10 \cdot 4}{10 \cdot 12}$$

$$x = 40$$



$$\frac{90}{50} = \frac{10 \cdot x}{10 \cdot 5}$$

$$\frac{90}{10} = \frac{10x}{10}$$

$$9 = x$$

Homework

LIME WS2

Due Tuesday