

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

Starter

Subtract each. Answers should be in simplest form.

1. $6\frac{5}{6} - 3\frac{3}{4}$

$$\begin{array}{r} 6\frac{5}{6} \quad \frac{10}{12} \\ - 3\frac{3}{4} \quad \frac{9}{12} \\ \hline \end{array}$$

$$3\frac{1}{12}$$

2. $3\frac{1}{4} - 2\frac{3}{8}$

$$\begin{array}{r} 3\frac{1}{4} \quad \frac{2}{8} \\ - 2\frac{3}{8} \\ \hline \end{array}$$

$$1\frac{1}{8}$$

3. $7\frac{2}{5} - 4\frac{1}{2}$

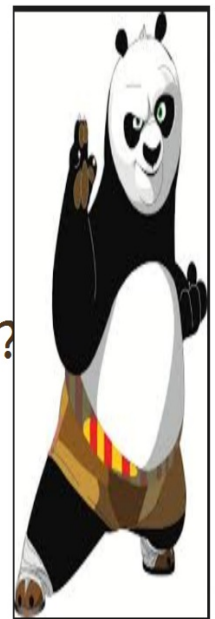
$$\begin{array}{r} 7\frac{2}{5} \quad \frac{4}{10} \\ - 4\frac{1}{2} \quad \frac{5}{10} \\ \hline \end{array}$$

$$2\frac{1}{10}$$

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

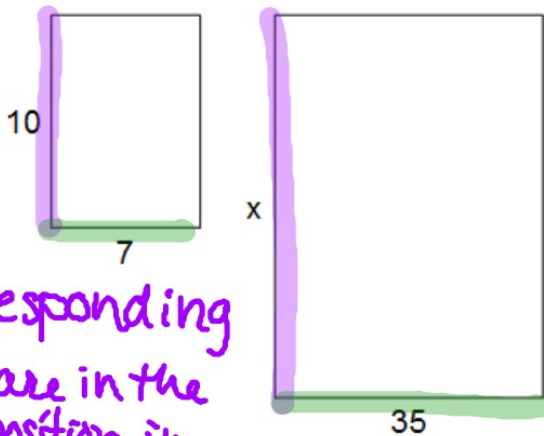
Slide
Zoom in
Zoom out
Rotate
Flip

NOT Similar

Horizontal Stretch
Vertical stretch

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

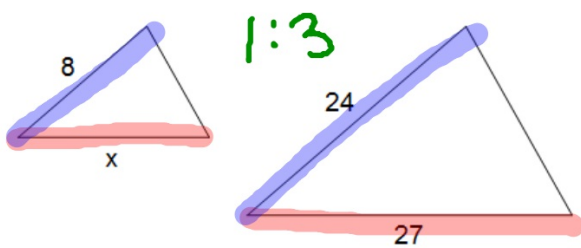
Find the missing measurement.



Corresponding sides are in the same position in both shapes.

$$\frac{10 \cdot 5}{7 \cdot 5} = \frac{x}{35}$$
$$50 = x$$

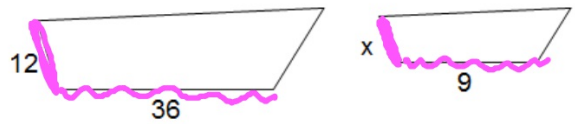
Find the missing measurements of these similar figures.



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

$$\frac{3x = 27}{3 \quad 3}$$

$$x = 9$$

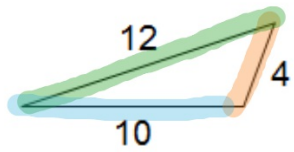
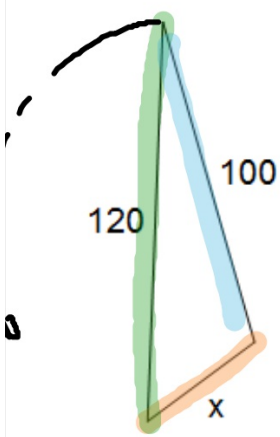


$$\frac{12}{36} = \frac{4 \cdot x}{4 \cdot 9}$$

$$12 = 4x$$

$$\frac{12}{4} = \frac{4x}{4}$$

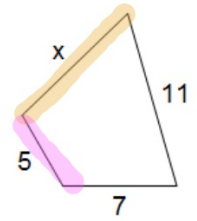
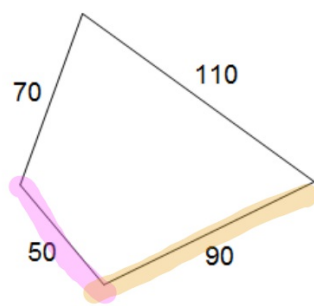
$$3 = x$$



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

$$x = 40$$

Zoom
Rotate
Flip
Slide



Homework

Green WS2

Due Tuesday