

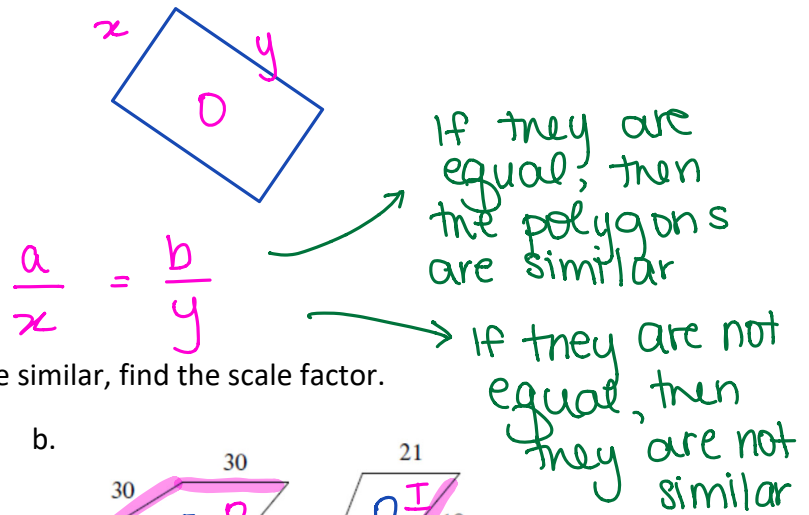
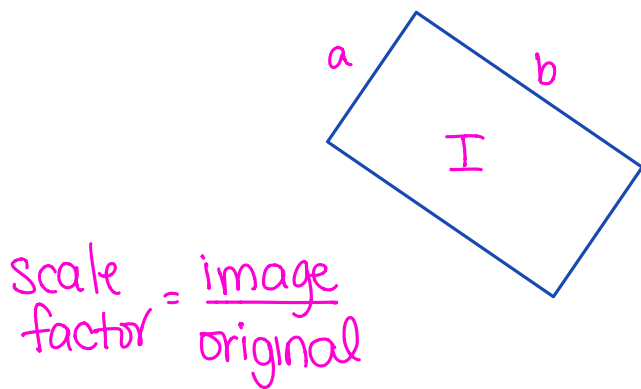
Name: _____

Date: _____

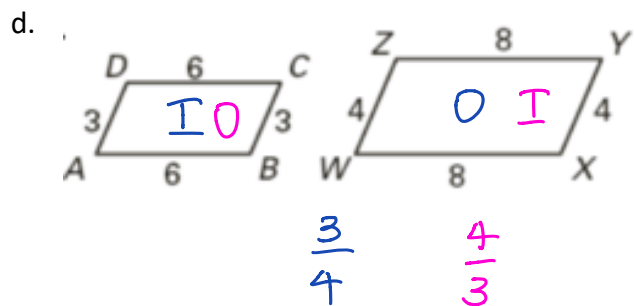
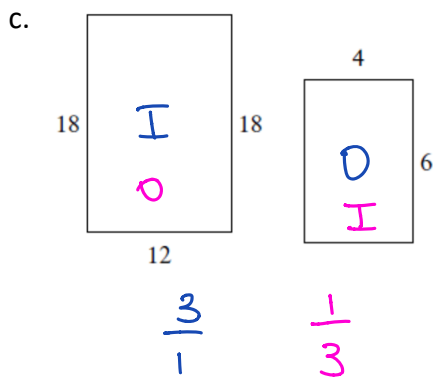
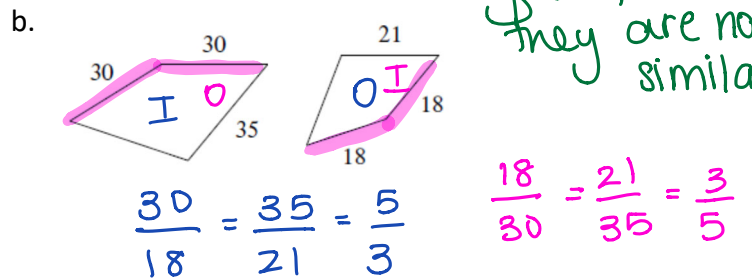
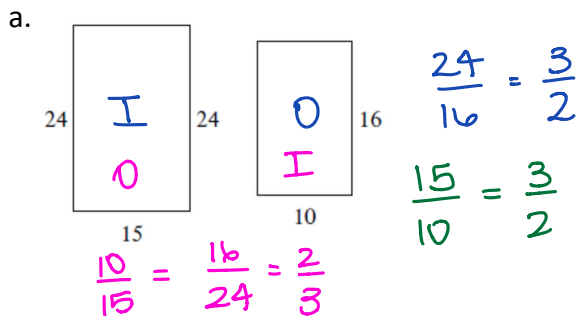
Learning Goal 7.3	I can solve problems involving similar polygons and triangles.
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Recall the criteria for polygons to be considered **similar**:

The scale factor needs to be the same for every measurement.

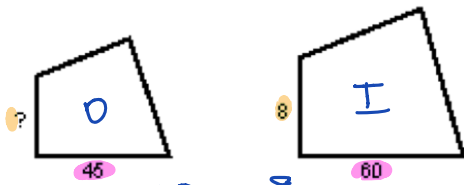


Example Given that the following pairs of polygons are similar, find the scale factor.



Example Given that the following pairs of polygons are similar, find the missing side length(s).

a.

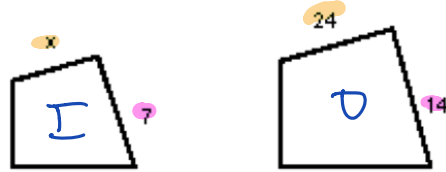


$$\frac{60}{45} = \frac{8}{?}$$

$$\frac{60}{45} = \frac{360}{60}$$

$$? = 6$$

b.

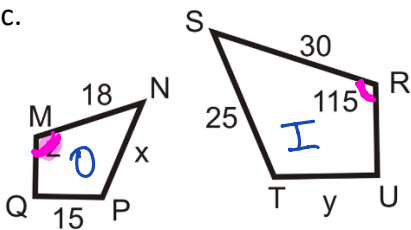


$$\frac{x}{24} = \frac{7}{14} = \frac{1}{2} \Rightarrow x = 12$$

$$\frac{14x}{14} = \frac{168}{14}$$

$$x = 12$$

c.

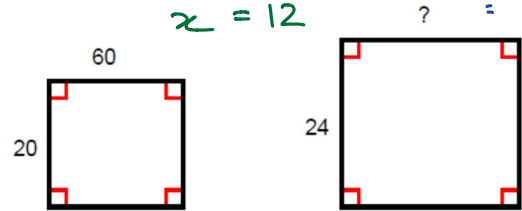


$$y = 25$$

$$x = 15$$

$$2 = 115^\circ$$

d.



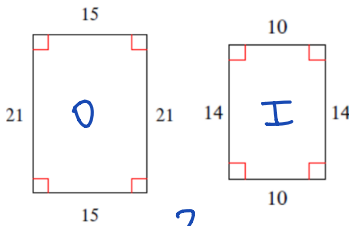
$$x = 12$$

$$? = 72$$

* All corresponding angles in similar shapes are equal.

Example Decide whether the following polygons are similar.

a.



2 SF

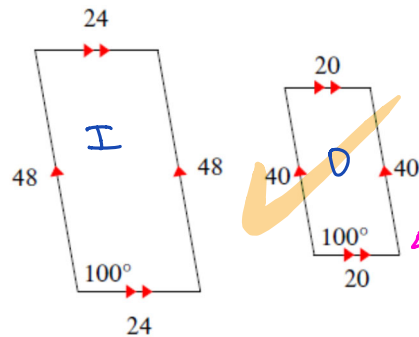
$$\frac{14}{21} = \frac{10}{15}$$

$$\frac{2}{3} = \frac{2}{3}$$

$$14 \div 21 = 0.\bar{6}$$

$$10 \div 15 = 0.\bar{6}$$

b.

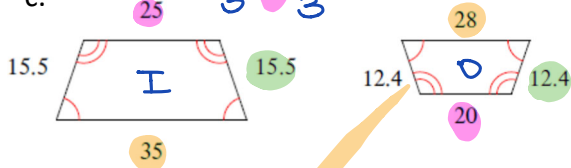


2 SF

$$\frac{48}{40} = \frac{24}{20}$$

$$\frac{12}{10} = \frac{12}{10}$$

c.

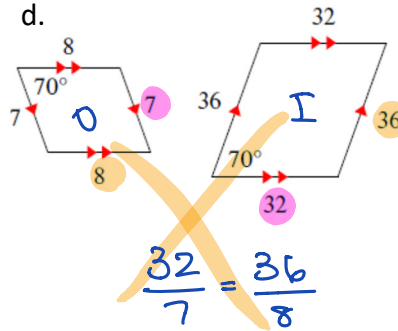


3 SF

$$SF = 1.25$$

$$\frac{35}{28} = \frac{25}{20} = \frac{15.5}{12.4}$$

d.



2 SF

$$\frac{32}{7} = \frac{36}{8}$$