

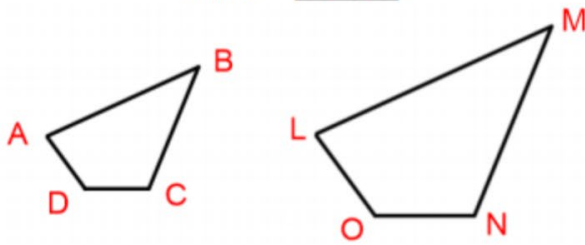
# 13.1 Similar Figures

# PRACTICE

The following figures are similar. Fill in the blanks.

1.

$$ABCD \sim LMNO$$



a.  $\angle L$  corresponds to  $\angle A$

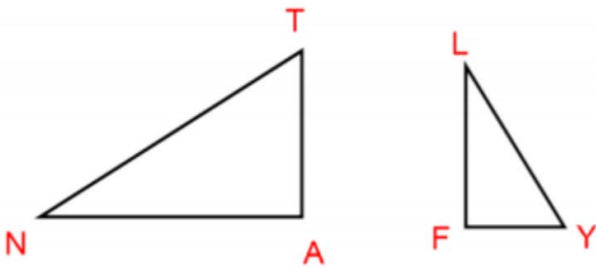
b.  $\overline{DC}$  corresponds to  $\overline{ON}$

c.  $\angle C$  corresponds to  $\angle N$

d.  $\overline{NM}$  corresponds to  $\overline{CB}$

2.

$$ANT \sim FLY$$



a.  $\angle N$  corresponds to  $\angle L$

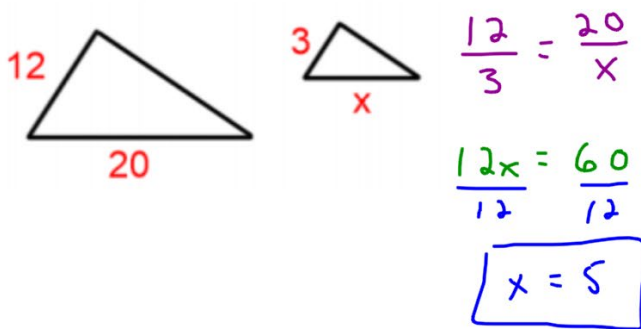
b.  $\overline{NA}$  corresponds to  $\overline{FL}$

c.  $\angle Y$  corresponds to  $\angle T$

d.  $\overline{FY}$  corresponds to  $\overline{AT}$

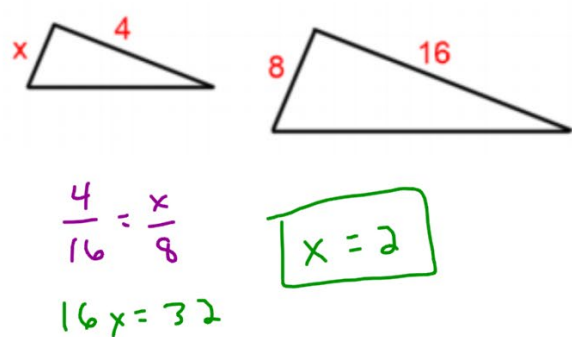
The following figures are similar. State the scale factor, set up a proportion, and find the missing side.

3.



Scale Factor =  $\frac{12}{3}$  or  $\frac{3}{12} = 3$  or  $\frac{1}{4}$

4.



Scale Factor =  $\frac{4}{16}$  or  $\frac{16}{4} = \frac{1}{4}$  or  $4$

5.



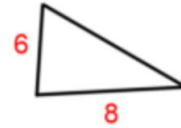
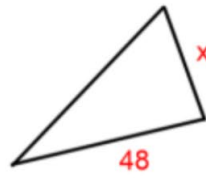
$$\frac{9}{4} = \frac{x}{2}$$

$$4x = 18$$

$$x = \frac{18}{4} = \frac{9}{2} \text{ or } 4.5$$

$$\text{Scale Factor} = \frac{9}{4} \text{ or } \frac{4}{9}$$

6.



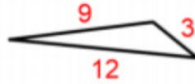
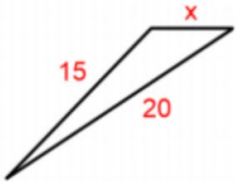
$$\frac{x}{6} = \frac{48}{8}$$

$$8x = 288$$

$$x = 36$$

$$\text{Scale Factor} = \frac{48}{8} \text{ or } \frac{8}{48} = 6 \text{ or } \frac{1}{6}$$

7.



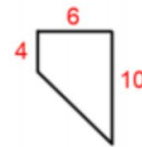
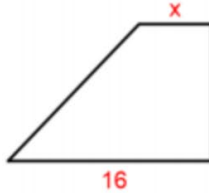
$$\frac{15}{9} = \frac{x}{3}$$

$$9x = 45$$

$$x = 5$$

$$\text{Scale Factor} = \frac{15}{9} \text{ or } \frac{9}{15} = \frac{5}{3} \text{ or } \frac{3}{5}$$

8.



$$\frac{6}{10} = \frac{x}{4}$$

$$10x = 64$$

$$x = 6.4$$

$$\text{Scale Factor} = \frac{10}{16} \text{ or } \frac{16}{10} = \frac{5}{8} \text{ or } \frac{8}{5}$$