

## Reteaching 6-3 Similar Figures and Scale Drawings

Similar triangles have the same shape but not necessarily the same size. In the figures,  $\triangle ABC$  is similar to  $\triangle DEF$ .

The symbol  $\sim$  means “is similar to.”  $\triangle ABC \sim \triangle DEF$ .

The lengths of the sides of similar triangles are always proportional to each other.

Find  $EF$ .

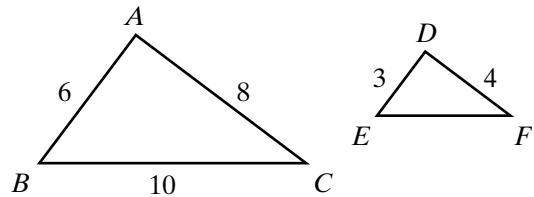
Substitute into  $\frac{AC}{DF} = \frac{BC}{EF}$ .

$\frac{8}{4} = \frac{10}{x}$  Write a proportion.

$8x = 40$  Find the cross products.

$\frac{8x}{8} = \frac{40}{8}$  Divide each side by 8.

$x = 5$  Simplify.



**Use the properties of similar triangles to calculate the side lengths in each problem.**

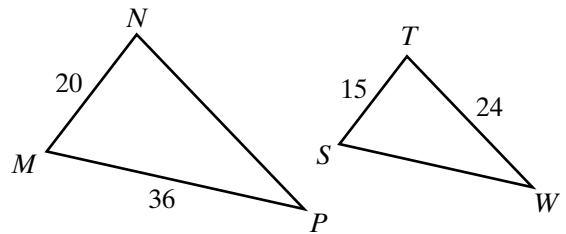
1.  $\triangle MNP \sim \triangle STW$ .

a. Complete:  $\frac{MN}{ST} = \frac{MP}{\square}$ ;  $\frac{MN}{ST} = \frac{\square}{TW}$

b. Substitute the correct lengths in the above proportions and solve.

$\frac{20}{15} = \frac{36}{\square}$ ;  $\frac{\square}{\square} = \frac{\square}{\square}$

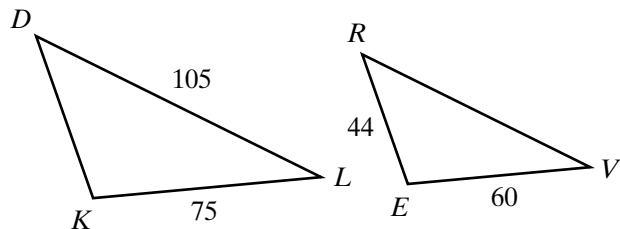
$SW = \underline{\hspace{2cm}}$        $NP = \underline{\hspace{2cm}}$



2.  $\triangle DKL \sim \triangle REV$ .

$DK = \underline{\hspace{2cm}}$

$RV = \underline{\hspace{2cm}}$



3.  $\triangle ANF \sim \triangle KGS$ .

$AN = \underline{\hspace{2cm}}$

$GS = \underline{\hspace{2cm}}$

