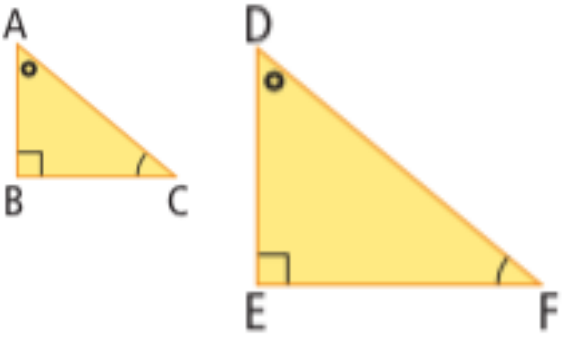
Similar Triangles

Similar triangles - have the same shape but different size
- have equal corresponding angles
- have proportional corresponding sides

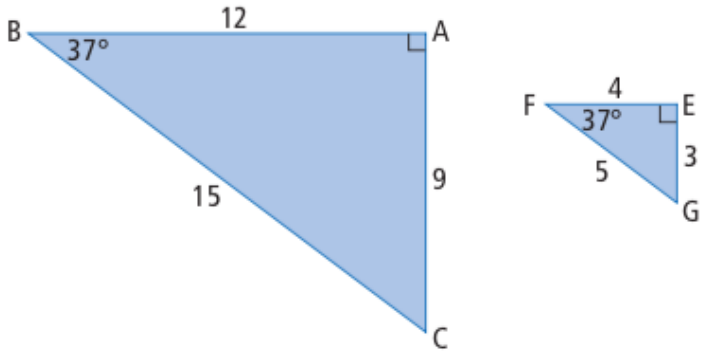


Corresponding Angles			**Corresponding Sides**		
$\angle A$	and	$\angle D$	AB	and	DE
$\angle B$	and	$\angle E$	BC	and	EF
$\angle C$	and	$\angle F$	AC	and	DF

We can say $\Delta ABC \sim \Delta DEF$.

Example 1 - Identifying Similar Triangles

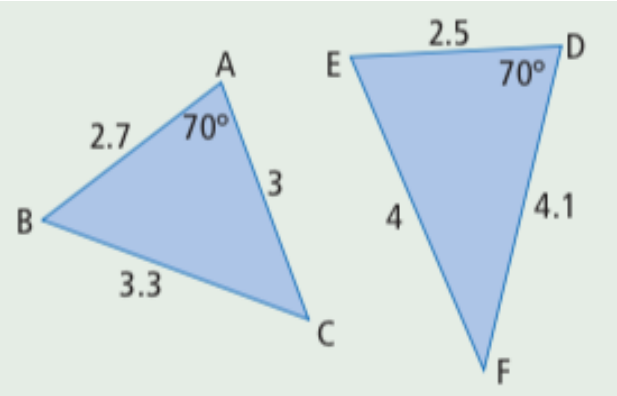
Determine if ΔABC is similar to ΔEFG.



Outcomes: SS4 - Draw and interpret scale diagrams of 2-D shapes
SS3 - Demonstrate an understanding of similarity of polygons

Example 2 - Identifying Similar Triangles

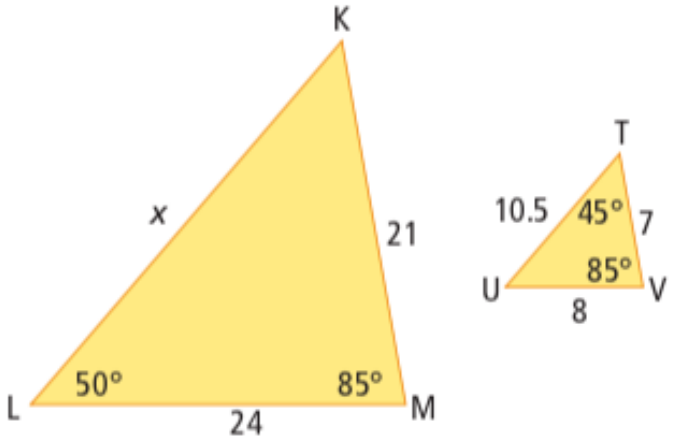
Determine if ΔABC is similar to ΔDEF.



Practice the following before moving on to the next example: Page 150 #4 - 7

Example 3 - Determining a Missing Side

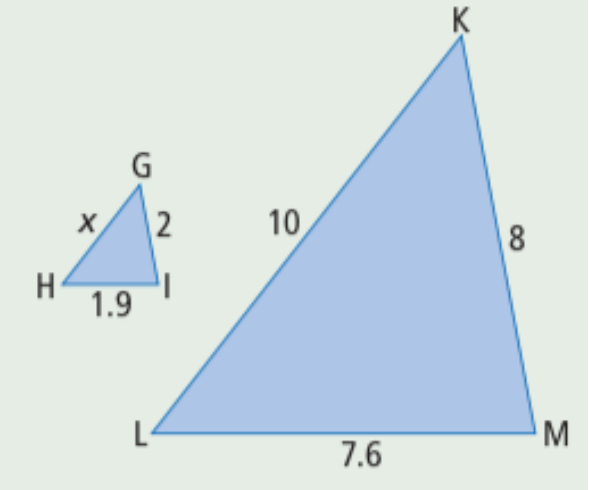
ΔKLM is similar to ΔTUV. Determine the missing side.



Outcomes: SS4 - Draw and interpret scale diagrams of 2-D shapes
SS3 - Demonstrate an understanding of similarity of polygons

Example 4 - Determining a Missing Side

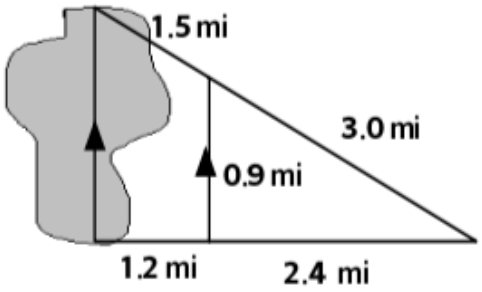
Determine the missing side if ΔGHI is similar to ΔKLM.



Practice the following before moving on to the next example: Page 151 #9, 10

Example 5 - Determining a Missing Side

Determine the length of the lake, using similar triangles.



Practice the following: Page 151 #12 - 15

Optional (challenge yourself!!!) - Page 152 #18, 19, 22

Outcomes: SS4 - Draw and interpret scale diagrams of 2-D shapes
SS3 - Demonstrate an understanding of similarity of polygons