

Learning Target G4a.3: I can use proportions to solve for missing side lengths of similar triangles.

Check for Understanding: Solve for x:

a.

$$\frac{x}{8} = \frac{4}{5}$$

b.

$$\frac{x}{12} = \frac{-2}{8}$$

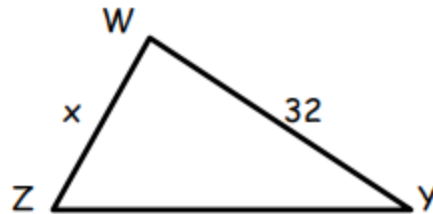
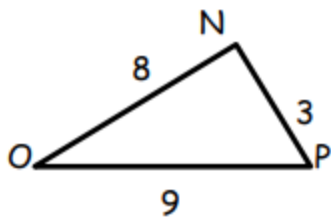
c.

$$\frac{x}{10} = \frac{54}{7}$$

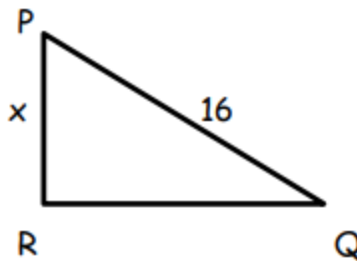
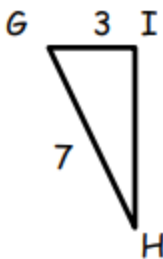
C-Level

1. Write a proportion and to find the missing side length in each pair of similar triangles.

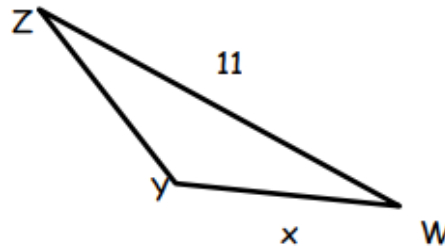
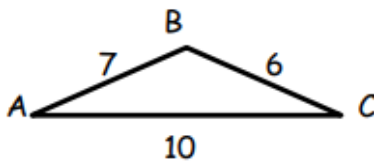
a. $\triangle NOP \sim \triangle WYZ$



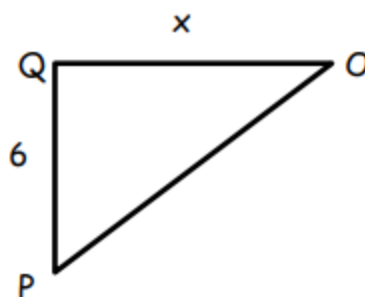
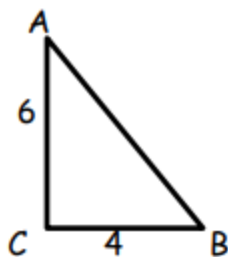
b. $\triangle GHI \sim \triangle PQR$



c. $\triangle ABC \sim \triangle ZYW$



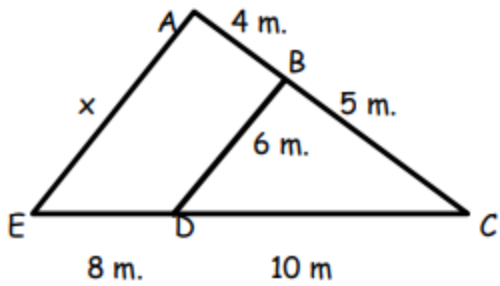
d. $\triangle ABC \sim \triangle OPQ$



B-level

2. **Given:** $\triangle DCB \sim \triangle ECA$

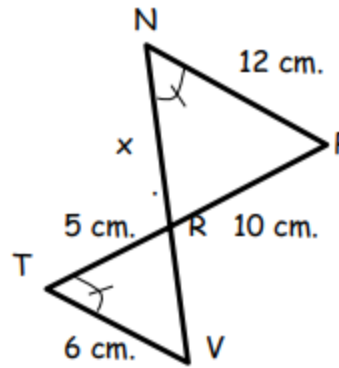
Solve for x .



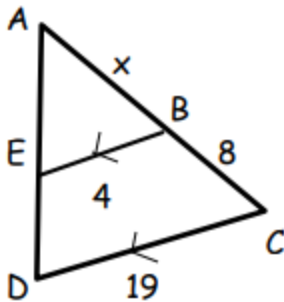
3. **Determine** which two triangles (if any) are similar.

Write the similarity statement.

Solve for x



4. Using the information on the diagram below determine which two triangles (if any) are similar. State what you are claiming and the provide the reason (using the language of geometry) that it is true. Then **solve** for ' x '.



Statement	Reason

Looking ahead:

A flowchart proof is a way of organizing statements and reasons. Examine the figure below. Determine if there are two similar triangles. Organize your statements and reasons used to prove this using the flowchart. Then solve for x

