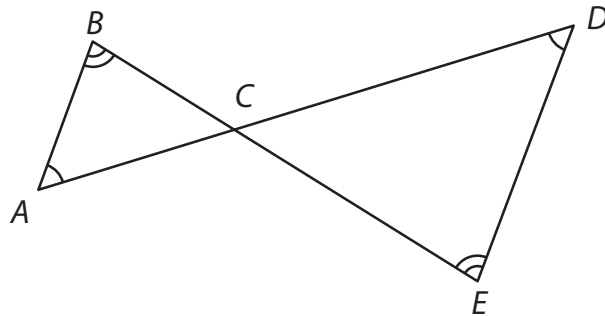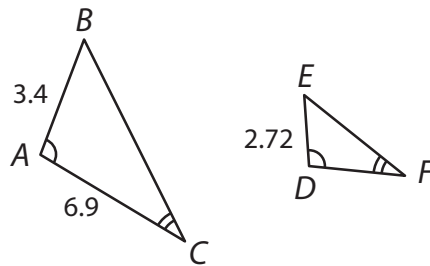**Example 1**

Explain why the triangles are similar and write a similarity statement.
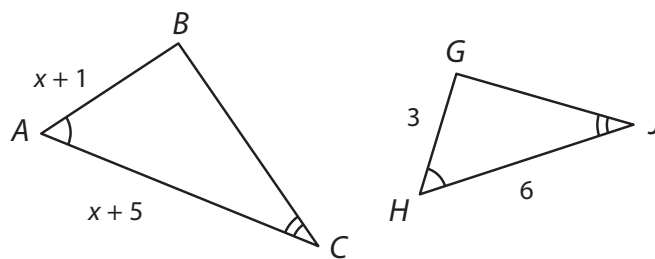

Example 2

Explain why $\triangle ABC \sim \triangle DEF$, and then find the length of $\overline{DF}$.

Example 3

Identify the similar triangles. Find x and the measures of the indicated sides.

Example 4

Suppose a person 5 feet 10 inches tall casts a shadow that is 3 feet 6 inches long. At the same time of day, a flagpole casts a shadow that is 12 feet long. To the nearest foot, how tall is the flagpole?