SIMILAR POLYGONS:

The three ways to show that **TRIANGLES** are similar are:

Similar triangles can be used in **INDIRECT MEASUREMENT**.

**EXAMPLE 1** Find the value of ‘x’.

![Diagram for Example 1]

**EXAMPLE 2** Find the value of ‘x’.

![Diagram for Example 2]

**EXAMPLE 3** Solve for ‘x’.

![Diagram for Example 3]
EXAMPLE 4  When Stephanie stands 2 feet from a lamp post, her shadow is 3 feet long. If Stephanie is 5 feet tall, how tall is the lamp post?

EXAMPLE 5  Charlie walks away from a tree along its shadow until his head is in line with the top of the tree’s shadow. Charlie is standing 15 feet from the base of the tree and 6 feet from the end of the shadow. Charlie is 5 feet tall. What is the height of the tree?

EXAMPLE 6  A mirror is on the ground 8 ft from Ricky and 19 ft from a flag pole. Ricky can see the top of the pole in the mirror. If Ricky is 6 ft tall, how tall is the flag pole?