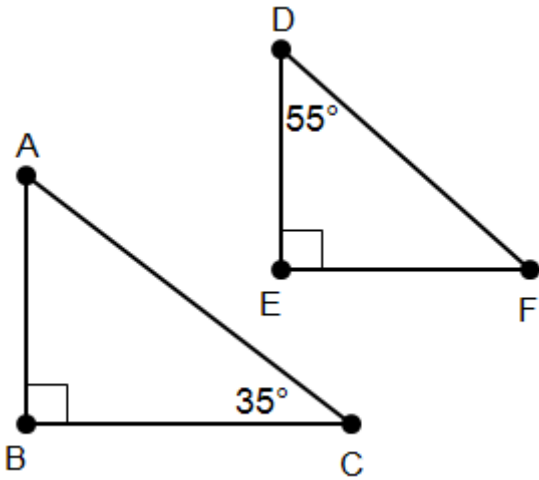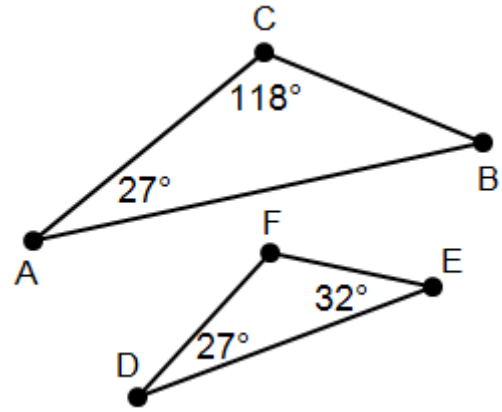Name:_____

SM2 8.2: Similarity

Practice Exercises:

Determine if the following triangles are similar. If so, write a similarity statement.
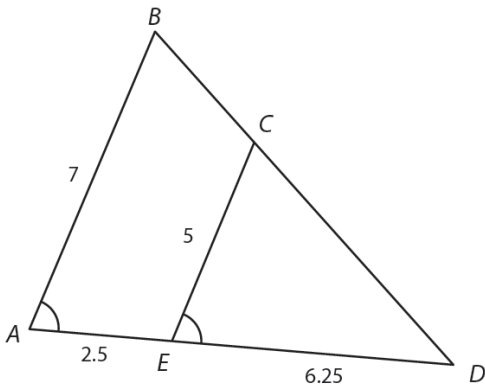
1)

2)

3)
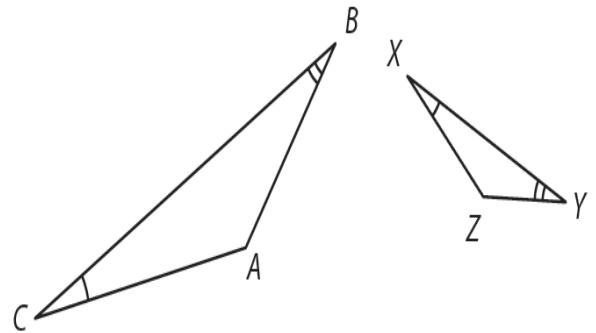

4)

5)

6)

7)

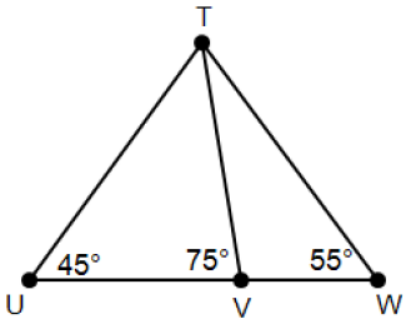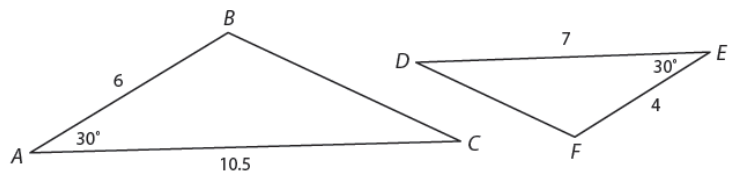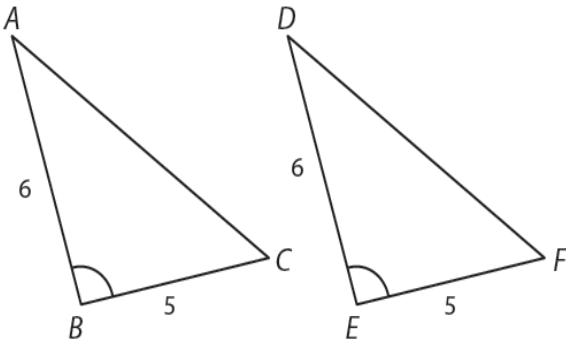8)
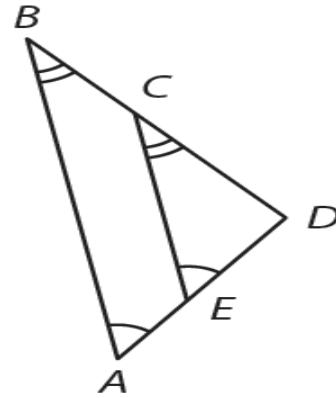
9)

10)

Find all the angle measures and side lengths for each triangle of the given similar pairs.

11) △ABC ~ △DEF
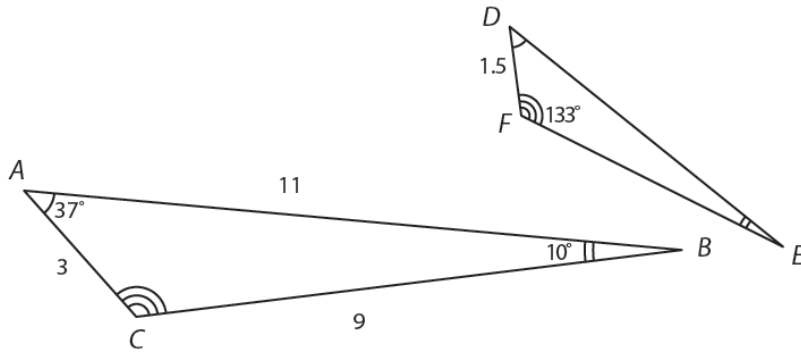
12) △JKL~△MNP
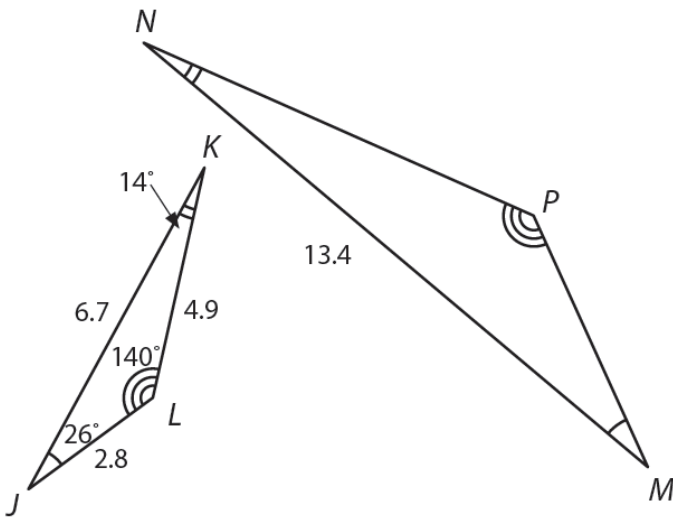
Prove that the triangles are similar.

13)

14)

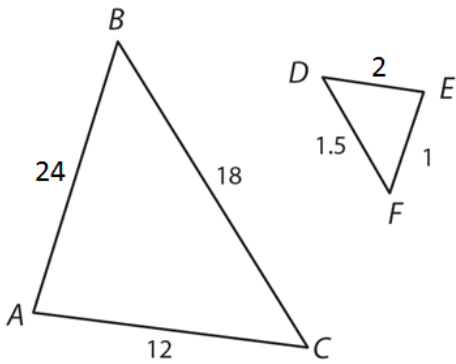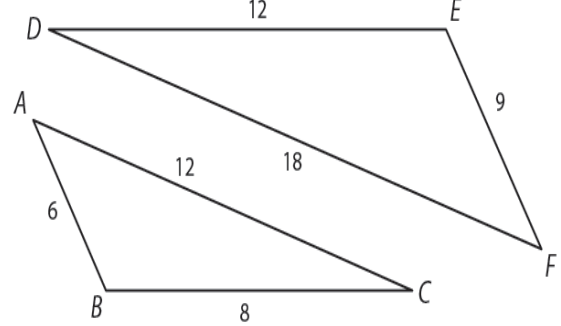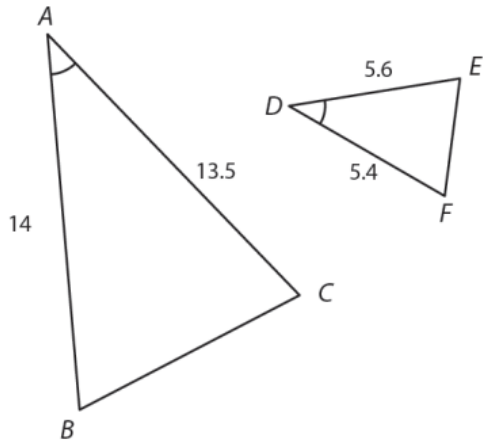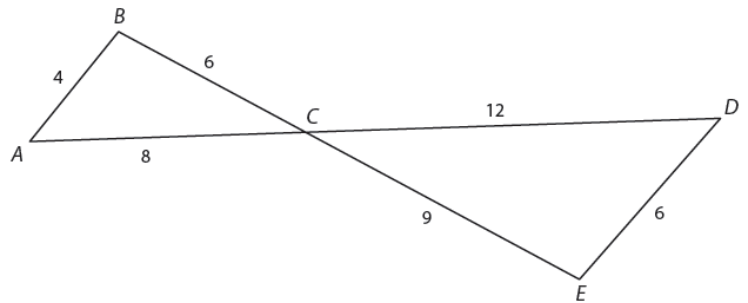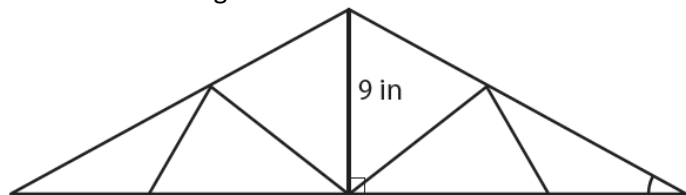*Application Problems:*

15) The support beams of truss bridges are triangles. James made a model of a truss bridge with a scale of 1 inch = 4 feet. If the height of the tallest triangle on the model is 9 inches, what is the height of the tallest triangle on the actual bridge?

16) A statue that is 25 feet tall casts a shadow that is 16 feet long. A cement post next to the statue is 4 feet tall. Find the length of the cement post's shadow.
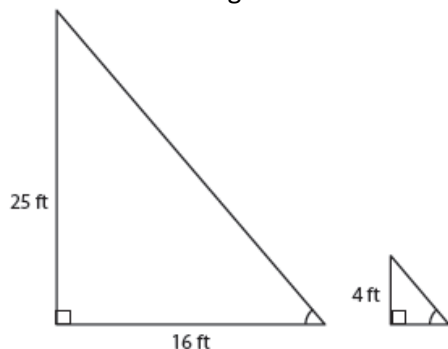
17) Sheila is standing near the Eiffel Tower in Paris, France. The shadow of the monument is 580 feet long, and Sheila's shadow is 3 feet long. If Sheila is 5 feet 6 inches tall, how tall is the monument?
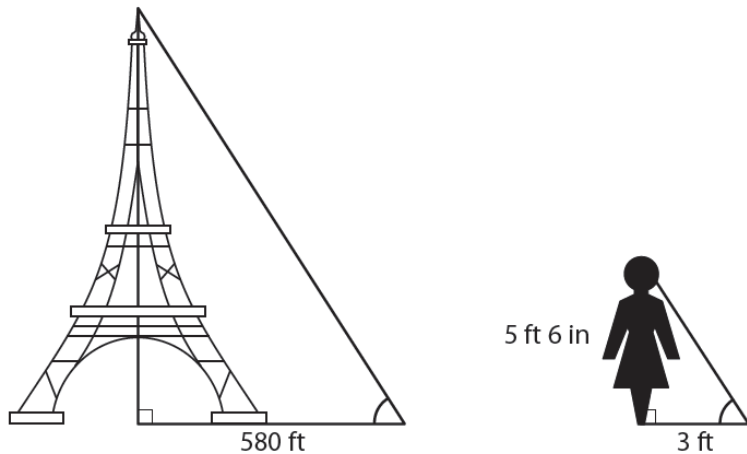
Challenge Problem:

18) Determine if the following triangles are similar. Justify your reasoning. Note that there are three triangles in the diagram.