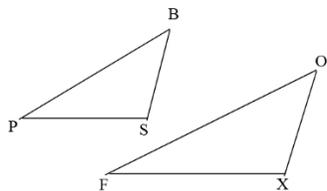Name _____   Date _____

1. $\triangle PBS \sim \triangle FOX$

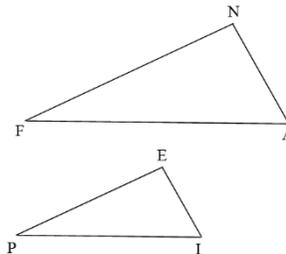These corresponding *angles* are congruent:

_____ ≅ _____

_____ ≅ _____

_____ ≅ _____

These corresponding *sides* are proportional:

2. $\triangle FAN \sim \triangle PIE$

These corresponding *angles* are congruent:

_____ ≅ _____

_____ ≅ _____

_____ ≅ _____

These corresponding *sides* are proportional:
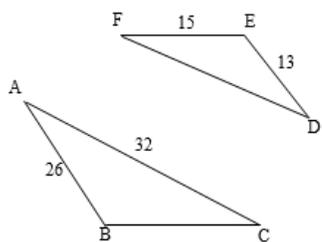
3. $\triangle CAR \sim \triangle BUS$

Which angles are congruent?   What sides are proportional?

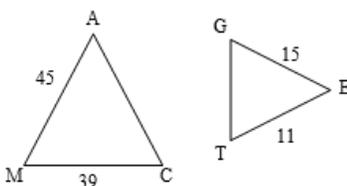Write the corresponding sides as a proportion. Then solve for the missing sides.

4. $\triangle ABC \sim \triangle DEF$ 5. $\triangle MAC \sim \triangle GET$ 6. $\triangle MNP \sim \triangle SQV$

_____ = _____ = _____   _____ = _____ = _____   _____ = _____ = _____
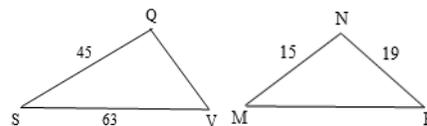
BC= _____ FD=_____   AC= _____ GT= _____   QV= _____   MP= _____

7) Two trees cast shadows on the ground as shown. The smaller tree is 17m high. Determine the height of the taller tree.
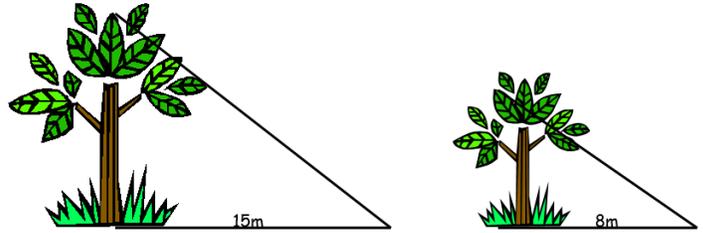
8) Triangles EFG and QRS are similar. The length of the sides of EFG are 144, 128, and 112. The length of the smallest side of QRS is 280, what is the length of the longest side of QRS? (draw a diagram and solve)

9) A 40-foot flagpole casts a 25-foot shadow. Find the shadow cast by a nearby building 200 feet tall. (draw a diagram and solve)

10) Chris used lumber to build a ramp. A side view of his ramp with its dimensions, is shown below. What is *h*, the height of the ramp?
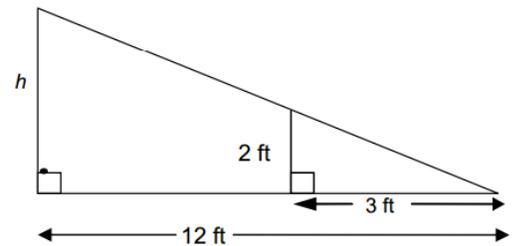
11) A girl 160cm tall, stands 360cm from a lamp post at night. Her shadow from the light is 90cm. How high is the lamp post?