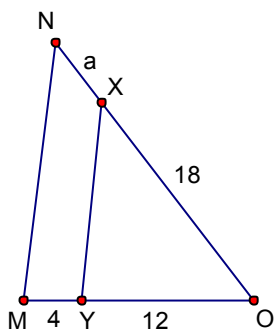


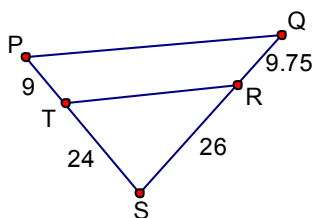
Applying Properties of Similar Triangles

Name _____

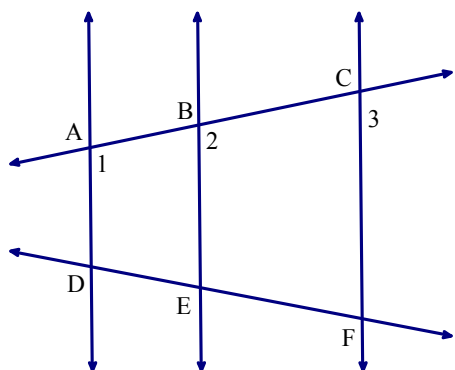
- 1) Given $\overline{NM} \parallel \overline{XY}$, find a .



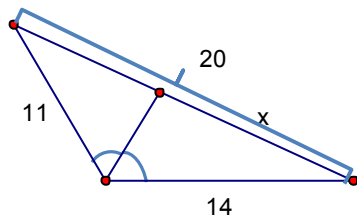
- 2) Given the diagram below, determine whether \overline{PQ} is parallel to \overline{TR} .



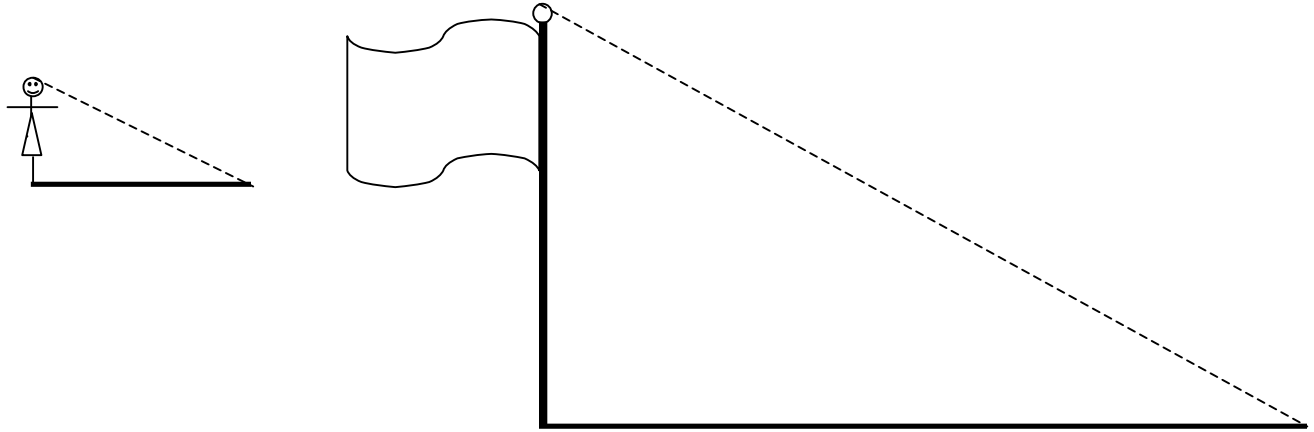
- 3) In the diagram below, $\angle 1 \cong \angle 2 \cong \angle 3$, $AB = 6$, $BC = 9$, $EF = 8$. Find DE .



- 4) Solve for x .



5) Merrigan who is 5 ft. 6 in. tall casts a 5 ft. shadow on the ground at a particular time on a sunny day. Marchesotti thinks that this info might be relevant towards finding the height of a nearby flagpole whose shadow is 14 ft. 2 in. long. Help Sophia find the height of the flagpole.



6) Given $\triangle ABC \sim \triangle DEF$, $BC = 4$ ft, $EF = 12$ ft, perimeter of $\triangle DEF = 42$ ft, and area of $\triangle DEF = 96$ ft². Find the perimeter and area of $\triangle ABC$. (Note: It may be helpful to drawing the similar triangles.)