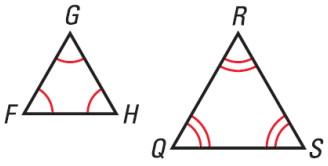
Geometry

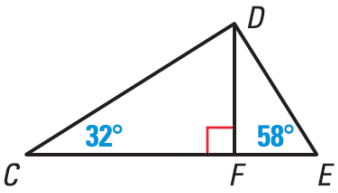
6.4 Prove Triangles Similar by AA

AA Similarity

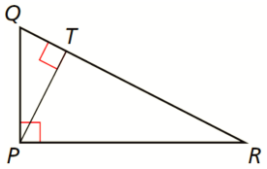
If _____ _____ of one triangle are congruent to _____ _____ of another triangle, then the triangles are _____.

Show that the triangles are similar. Write a similarity statement.

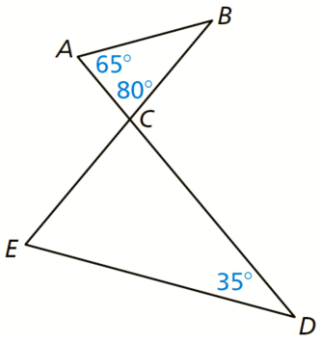




$\triangle QPR$ and $\triangle QTP$



$\triangle ABC$ and $\triangle EDC$



You can use similar triangles to find things like the height of a tree by using shadows. You put a stick perpendicular to the ground. Measure the stick and the shadow. Then measure the shadow of the tree. The triangles formed by the stick and the shadow and the tree and its shadow are similar, so the height of the tree can be found by ratios. Suppose we use a meter stick. The stick's shadow is 3 m. The tree's shadow is 150 m. How high is the tree?

Assignment: 417 #2, 4, 6, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 20, 22, 31, 33, 34, 35, 36 = 20 total