Geometry

6.4 Prove Triangles Similar by AA

## AA Similarity

similar

angles

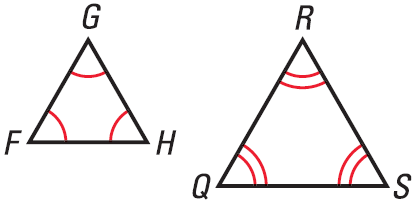
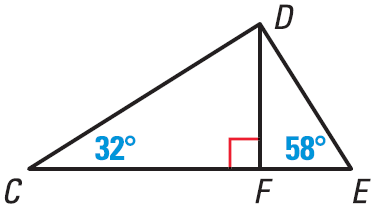
two

angles

two

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

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



by Triangle Sum Theorem

by AA Similarity

by AA Similarity

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: 384 #4-22 even, 26-32 even, 41-46 all, 48 = 21