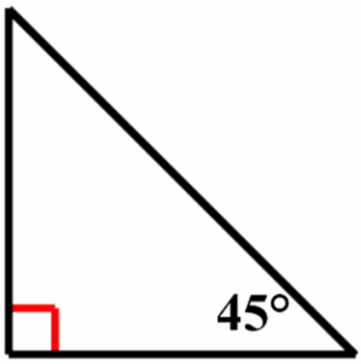
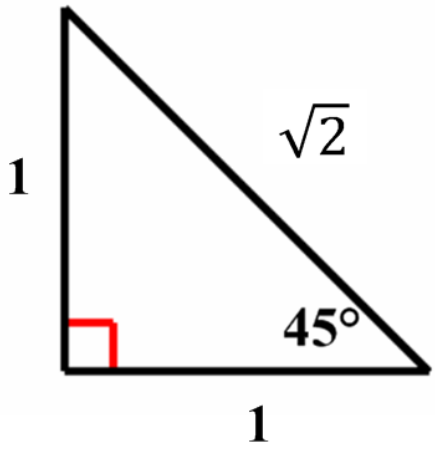
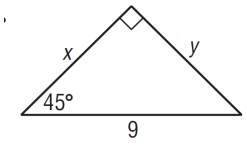
In a 45°-45°-90° Δ, the hypotenuse is $\sqrt{2}$ times a leg.

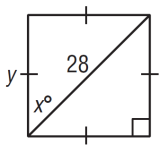


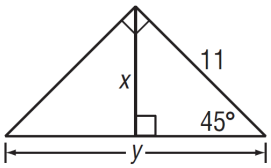
We can use these relationships to write proportions comparing every 45-45-90 triangle to a "rule triangle" for 45-45-90.



"Rule" triangle for 45-45-90 triangles

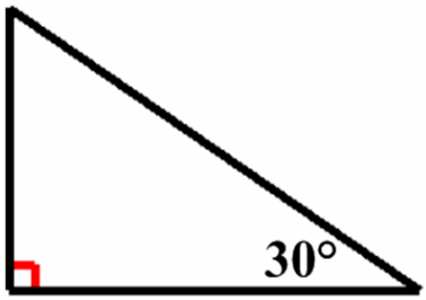




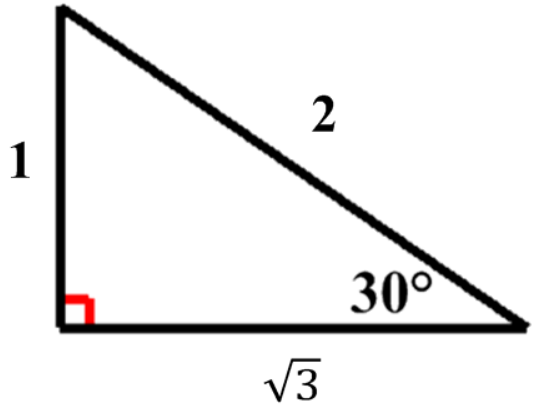


http://glencoe.mcgraw-hill.com/sites/dl/free/0078738181/518676/geoprac.pdf

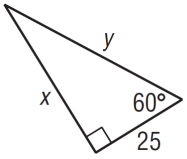
In a 30°-60°-90° Δ, the hypotenuse is twice as long as the shorter leg, and the longer leg is $\sqrt{3}$ times as long as the shorter leg.

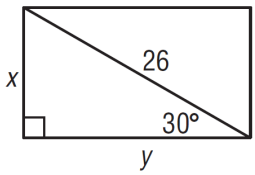


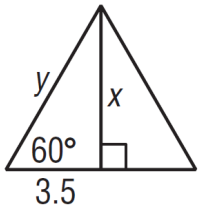
We can use these relationships to write proportions comparing every 30-60-90 triangle to a "rule triangle" for 30-60-90.



"Rule" triangle for 30-60-90 triangles







http://glencoe.mcgraw-hill.com/sites/dl/free/0078738181/518676/geoprac.pdf

The diagonal of a square measures 3 cm. What is the measure of one side of the square?

The altitude of an equilateral triangle measures $6\sqrt{3}$ meters. Find the perimeter of the triangle.