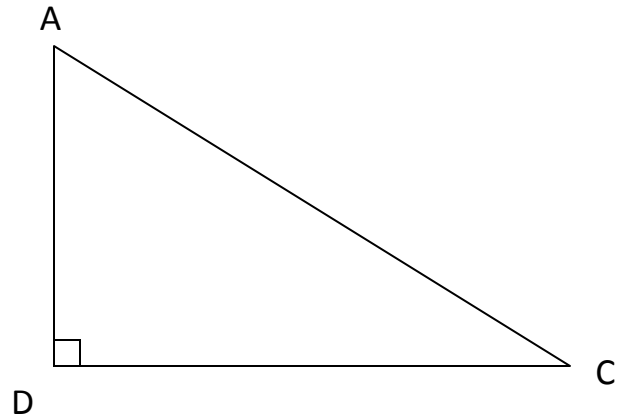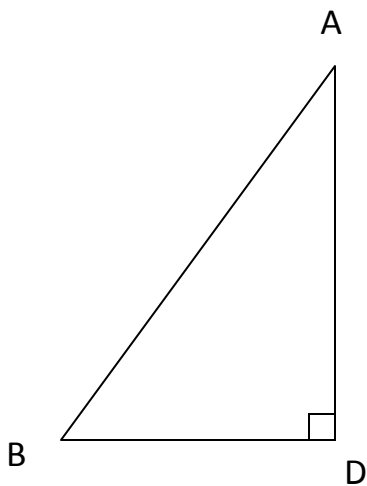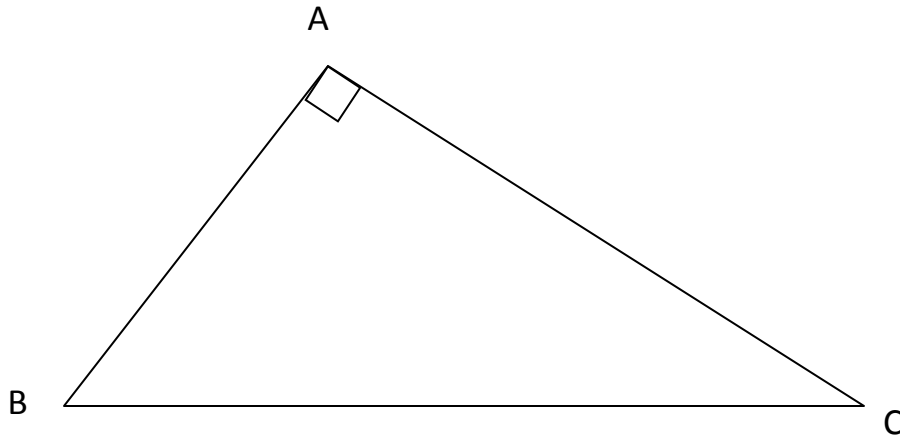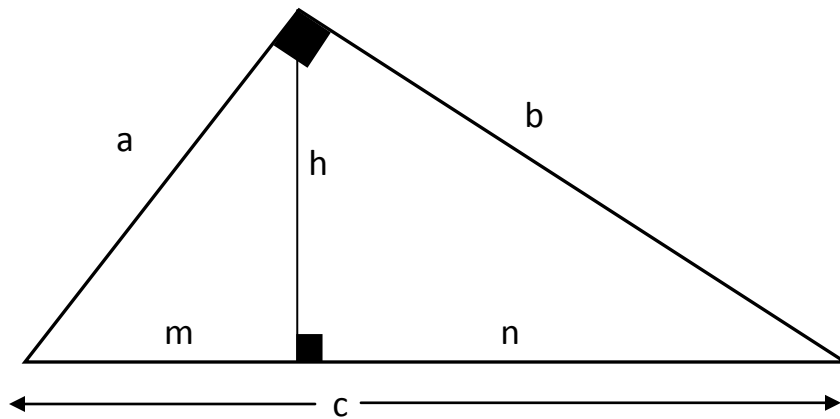# Metric Relations in a Right Triangle
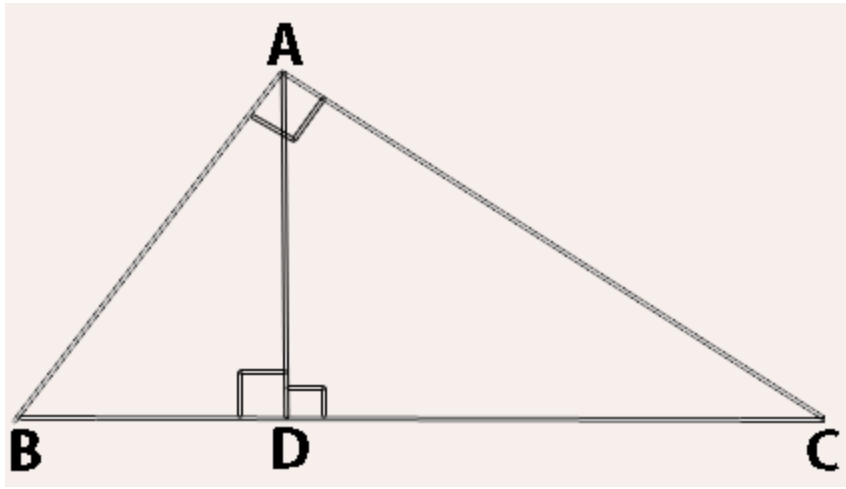
There are 3 similar triangles in the illustration above. Can you name them and draw them?

Because there are 3 similar triangles, we can find just about any missing measure in a figure like the one below.

Instead of using proportions to solve, we will use four simple formulas:

$$a^2 = m*c$$

$$b^2 = n*c$$

$$h^2 = m*n$$

$$a*b = h*c$$

AND because it's a right triangle, we can also use Pythagoras!

$$a^2 + b^2 = c^2$$

Ex. Find the missing measures