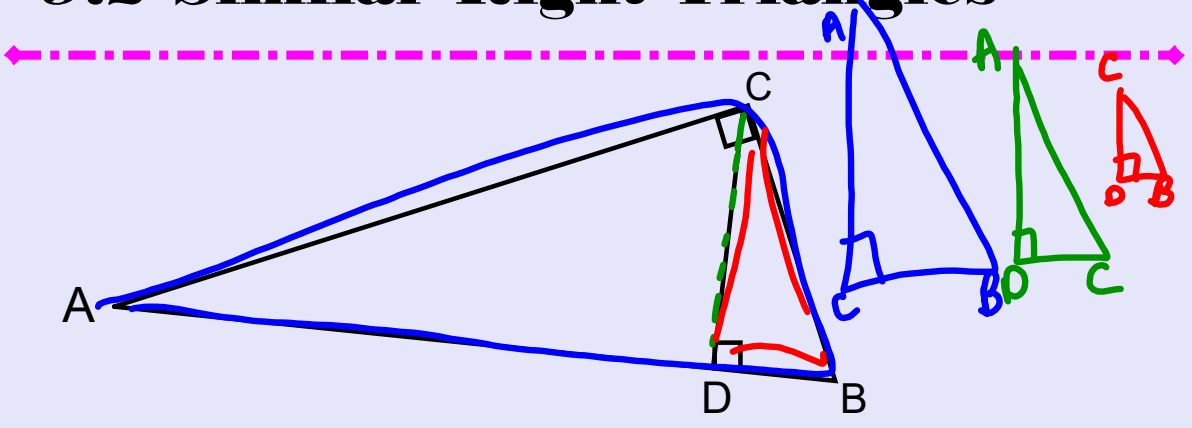


# 9.2 Similar Right Triangles

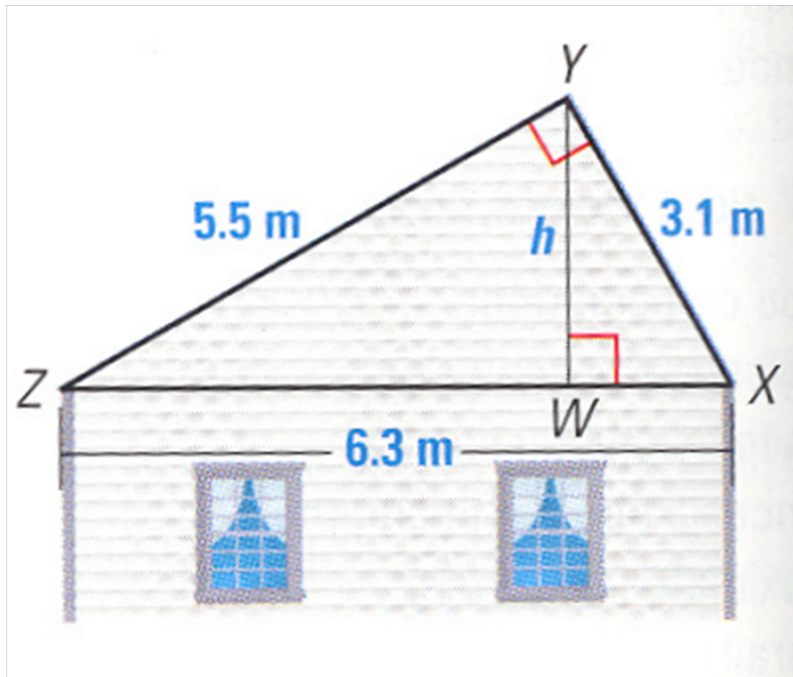


THEOREM 9.1 If an altitude is drawn to the hypotenuse of a right triangle, then the two triangles formed are similar to the original triangle and to each other.

What????

Feb 18-2:14 PM

**Example #1. A roof has a cross section of a right triangle.**



Feb 18-2:40 PM

Continued from slide 3.

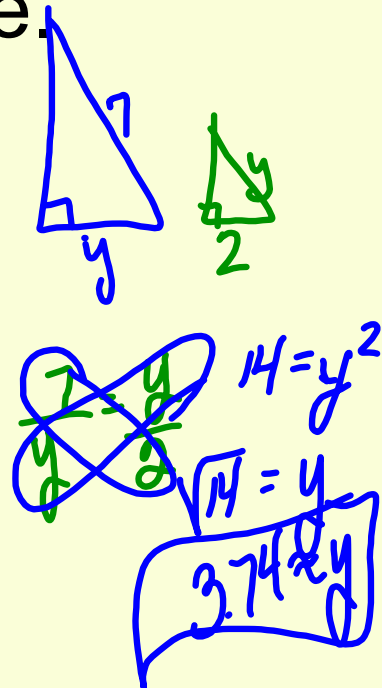
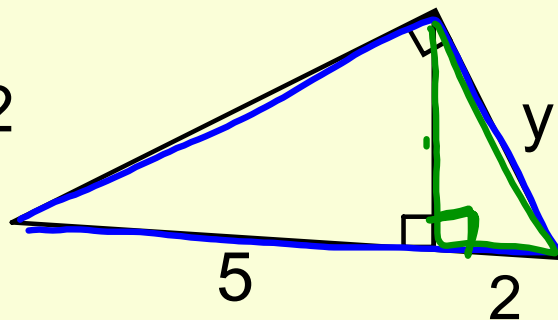
**a.) Draw and label the 3 similar triangles**

**b.) Solve for (the height of the roof)**

Feb 18-2:44 PM

Solve for the variable.

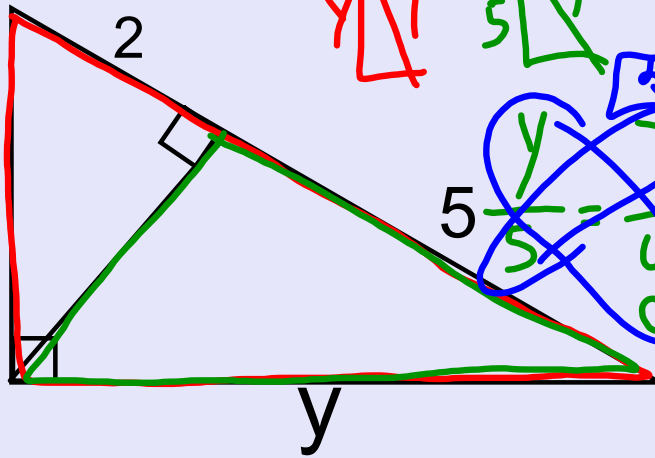
ex. 2



Feb 18-2:47 PM

Solve for the variable.

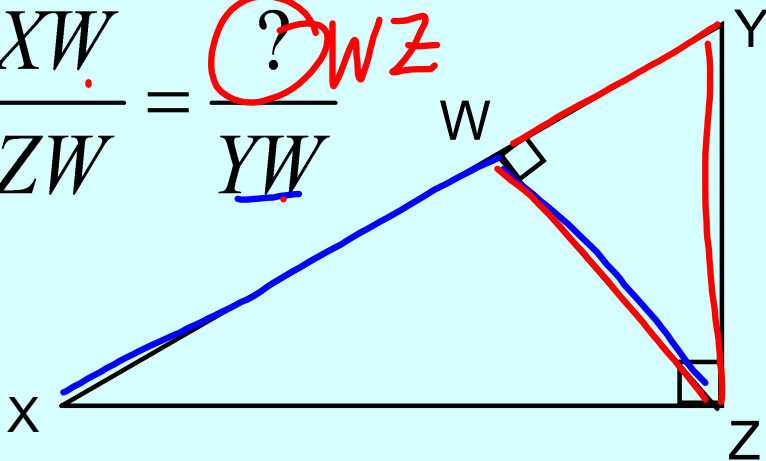
ex. 3



Feb 18-2:47 PM

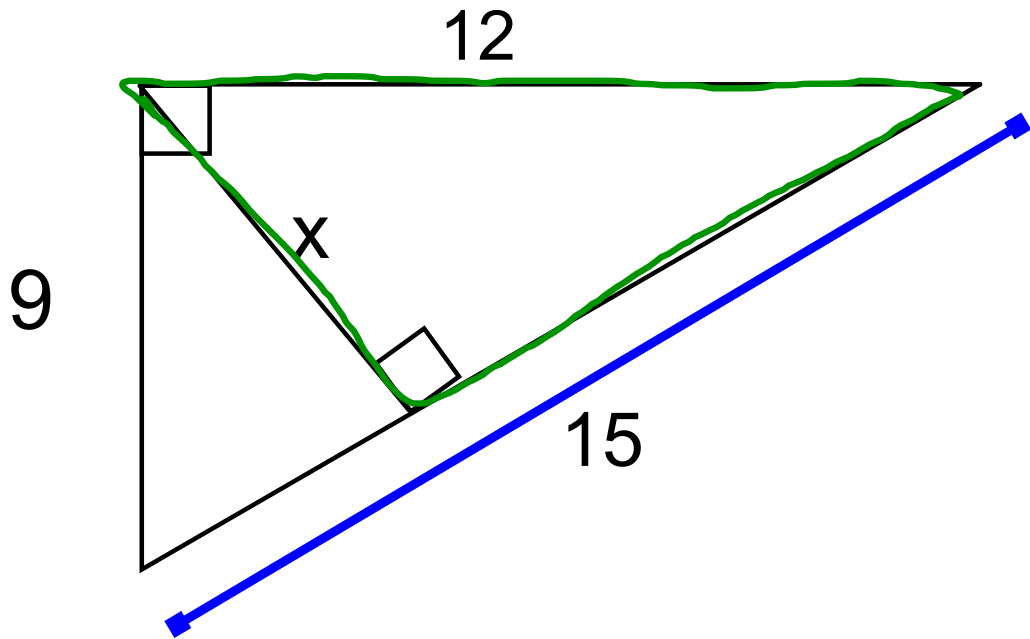
**Ex. 4 Complete the proportion.**

$$\frac{XW}{ZW} = \frac{?}{YW}$$

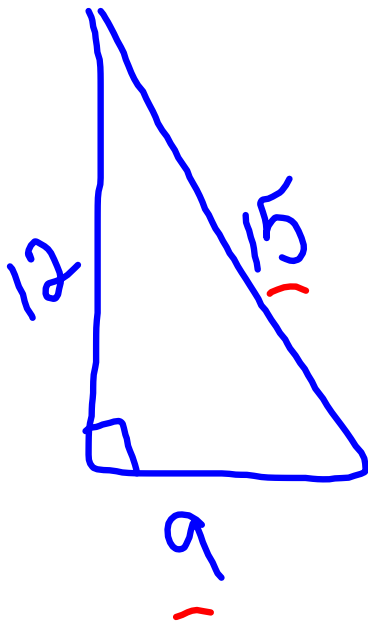


Feb 18-2:53 PM

**Ex. 5 Set up a proportion to help you solve for x.**



Feb 18-2:59 PM



$$\frac{15}{12} = \frac{9}{x}$$

$$15x = 108$$

$$x = 7.2$$

Feb 8-2:30 PM