

# Similar Right Triangles Notes and WS

Name \_\_\_\_\_ Period \_\_\_\_\_

## Geometric Mean

The geometric mean of two positive numbers  $a$  and  $b$  is the positive number  $x$  such that:

Find the geometric mean for the following #'s:

4 and 9      3 and 15      2 and 10

Find the geometric mean of the two numbers. Leave your answer in simplified radical form.

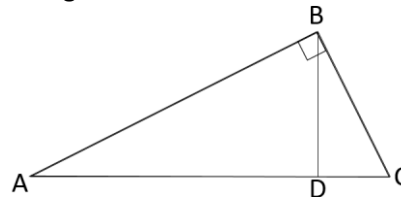
1. 8 and 32      2. 9 and 16      3. 14 and 20      4. 22 and 33

5. 4 and 12      6. 18 and 27      7. 3 and 81      8. 64 and 4

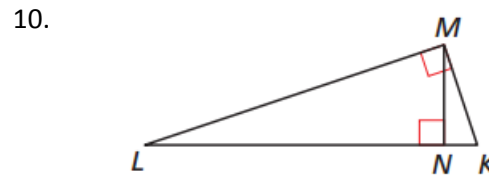
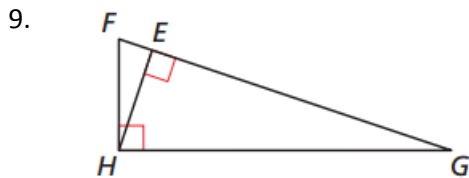
## Similar Right Triangles

In a right triangle, if an altitude is drawn from the right angle to the hypotenuse, two triangles are formed that are similar to the original.

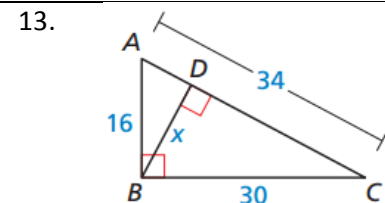
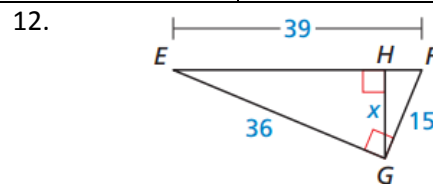
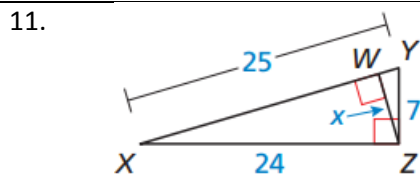
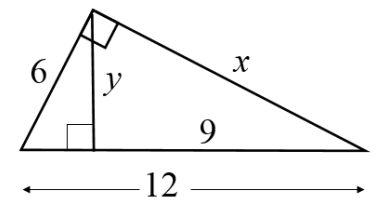
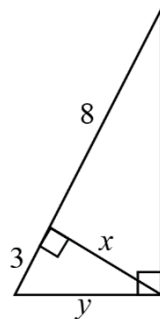
Write the similarity statement that relates the three triangles.



Identify the similar triangles.



Find the value of each variable.

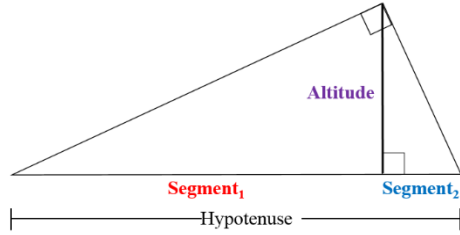


# Geometric Mean Notes and WS

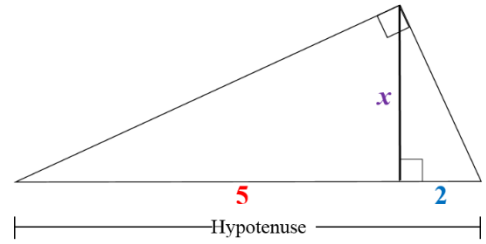
Name \_\_\_\_\_ Period \_\_\_\_\_

## Geometric Mean

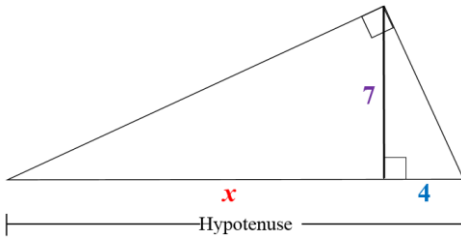
The altitude is the geometric mean between the segments of the hypotenuse.



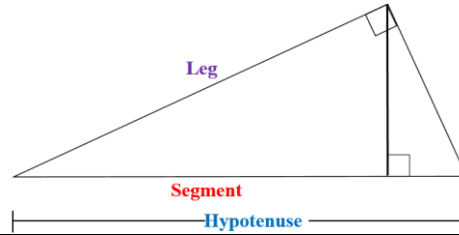
Find  $x$ .



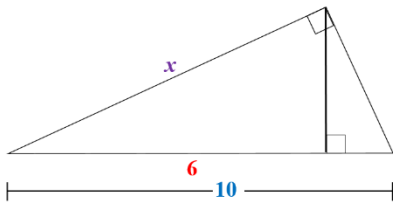
Find  $x$ .



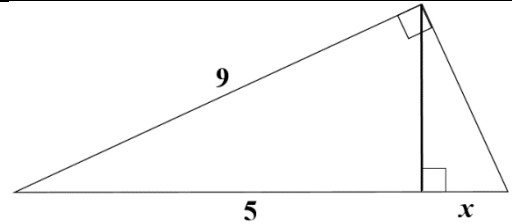
The leg is the geometric mean between the hypotenuse and the segment adjacent to the given leg.



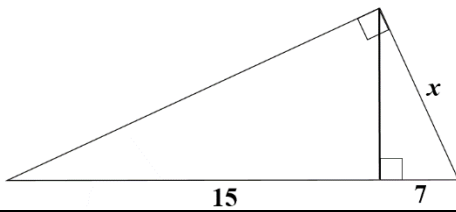
Find  $x$ .



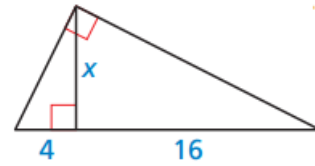
Find  $x$ .



Find  $x$ .



1. Find  $x$ .



Find the value of the variable. Leave your answers in simplified radical form.

