

### 9.3 Similar Right Triangles

Find the geometric mean of each pair of numbers.

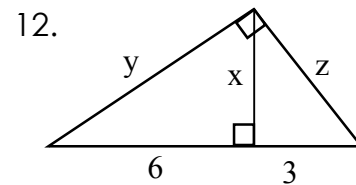
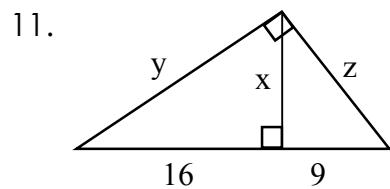
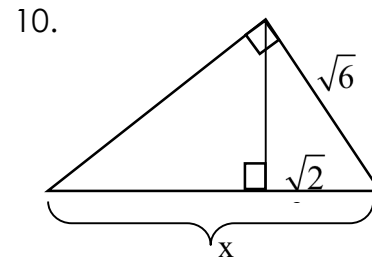
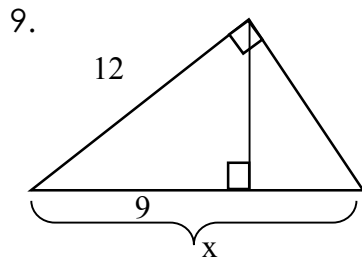
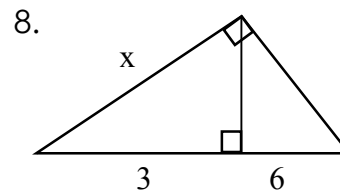
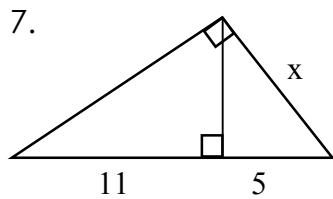
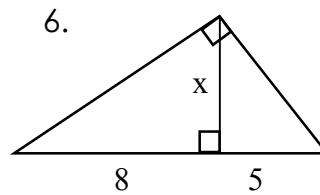
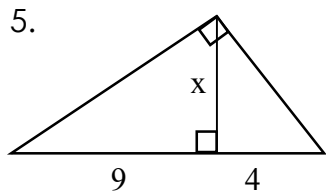
1. 4 and 16

2. 6 and 5

3. 2 and 20

4. 15 and 10

Find the missing lengths.



Choose the correct answer.

13. In which proportion is  $q$  the geometric mean?

A)  $\frac{x}{t} = \frac{t}{q}$

B)  $\frac{p}{q} = \frac{q}{r}$

C)  $\frac{q}{p} = \frac{r}{p}$

D)  $\frac{p}{q} = \frac{r}{s}$

**BONUS**: What is the geometric mean of  $\frac{3}{4}$  and  $\frac{7}{8}$ , to the nearest hundredth?

**Geometric Mean Worksheet**

Name: \_\_\_\_\_

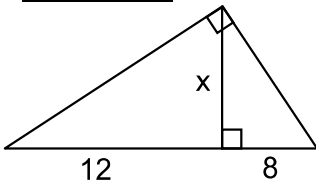
Write a proportion for each problem. Show all work for each problem.

No work = no credit. Round to tenths place

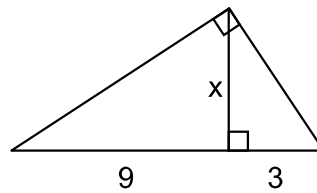
1. Find the geometric mean of 8 and 18.
2. Find the geometric mean of 20 and 25.
3. 15 is the geometric mean of 25 and what other number?
4. Find the geometric mean of 3 and 7.
5. 32 is the geometric mean of 16 and what other number?

**Solve for the missing variable.**

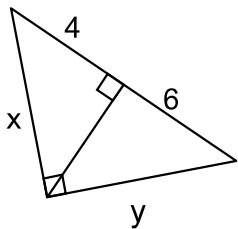
6.  $x =$  \_\_\_\_\_



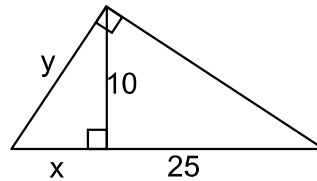
7.  $x =$  \_\_\_\_\_



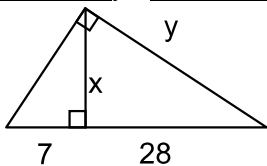
8.  $x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_



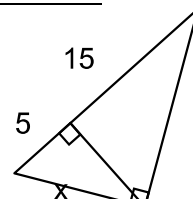
9.  $x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_



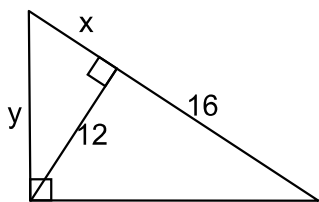
10.  $x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_



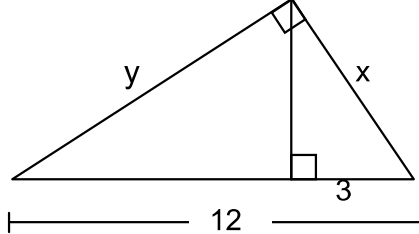
11.  $x =$  \_\_\_\_\_



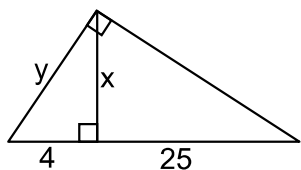
12.  $x = \underline{\hspace{2cm}}$   $y = \underline{\hspace{2cm}}$



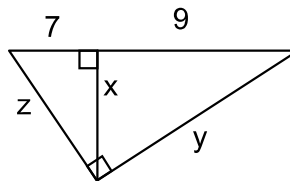
13.  $x = \underline{\hspace{2cm}}$   $y = \underline{\hspace{2cm}}$



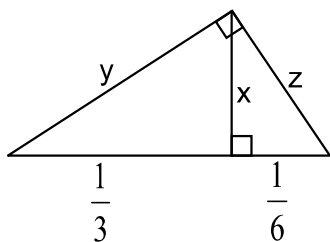
14.  $x = \underline{\hspace{2cm}}$   $y = \underline{\hspace{2cm}}$



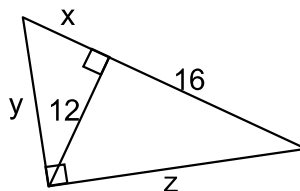
15.  $x = \underline{\hspace{2cm}}$   $y = \underline{\hspace{2cm}}$



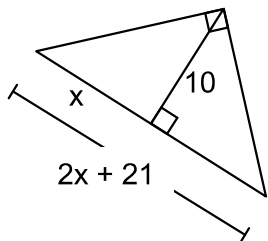
16.  $x = \underline{\hspace{2cm}}$   $y = \underline{\hspace{2cm}}$   $z = \underline{\hspace{2cm}}$



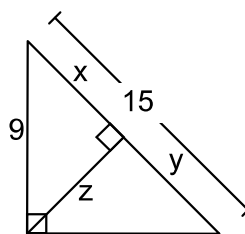
17.  $x = \underline{\hspace{2cm}}$   $y = \underline{\hspace{2cm}}$   $z = \underline{\hspace{2cm}}$



18.  $x = \underline{\hspace{2cm}}$



19.



$x = \underline{\hspace{2cm}}$   
 $y = \underline{\hspace{2cm}}$   
 $z = \underline{\hspace{2cm}}$