

# Worksheet on Geometric Mean

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

Show all work!!!

## I. Simplify each radical.

1.  $\sqrt{8}$

2.  $\sqrt{48}$

3.  $\frac{1}{\sqrt{2}}$

4.  $\sqrt{\frac{3}{5}}$

5.  $\frac{2}{3\sqrt{5}}$

## II. Find the geometric mean between each pair of numbers.

6. 2 and 8

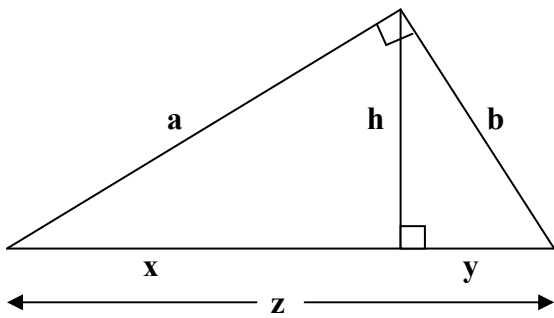
7. 9 and 16

8. 4 and 5

9.  $\sqrt{3}$  and  $\sqrt{5}$

10. 5 and 1.25

## III. NOTES



**h** is the \_\_\_\_\_

**h** is the geometric mean between \_\_\_\_\_ and \_\_\_\_\_

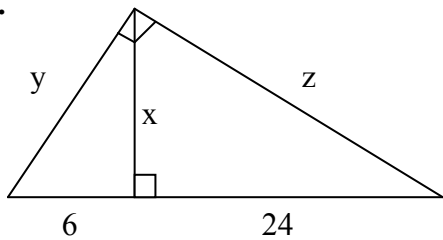
**a** is a \_\_\_\_\_

**a** is the geometric mean between \_\_\_\_\_ and \_\_\_\_\_

**b** is a \_\_\_\_\_

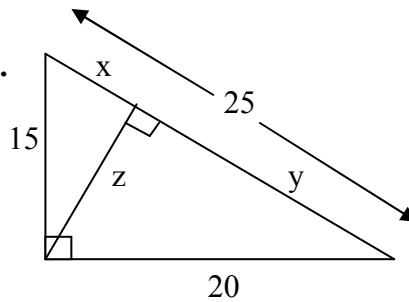
**b** is the geometric mean between \_\_\_\_\_ and \_\_\_\_\_

11.



$x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_  $z =$  \_\_\_\_\_

12.



$x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_  $z =$  \_\_\_\_\_

**MORE PRACTICE:**

Simplify each radical.

1.  $\sqrt{144} =$  \_\_\_\_\_

2.  $\sqrt{50} =$  \_\_\_\_\_

3.  $\sqrt{\frac{81}{100}} =$  \_\_\_\_\_

4.  $\frac{\sqrt{3}}{\sqrt{7}} =$  \_\_\_\_\_

5.  $\sqrt{\frac{49}{12}} =$  \_\_\_\_\_

6.  $\frac{5}{\sqrt{5}} =$  \_\_\_\_\_

7.  $\frac{3}{\sqrt{121}} =$  \_\_\_\_\_

8.  $\frac{6}{\sqrt{72}} =$  \_\_\_\_\_

Find the geometric mean of each pair of numbers.

9. 7 and 9 \_\_\_\_\_

10. 14 and 14 \_\_\_\_\_

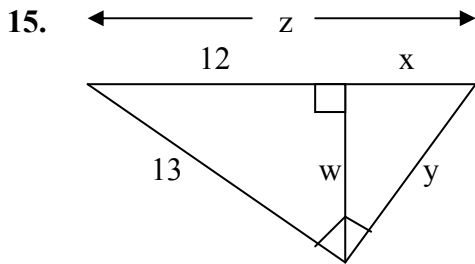
11.  $2\sqrt{3}$  and  $\sqrt{3}$  \_\_\_\_\_

12.  $8\sqrt{2}$  and  $\sqrt{2}$  \_\_\_\_\_

13. 10 and 8.1 \_\_\_\_\_

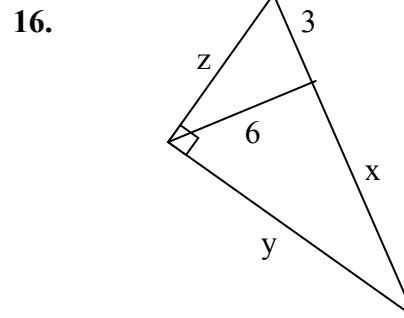
14.  $\frac{9}{16}$  and  $\frac{25}{36}$  \_\_\_\_\_

Find the indicated length.

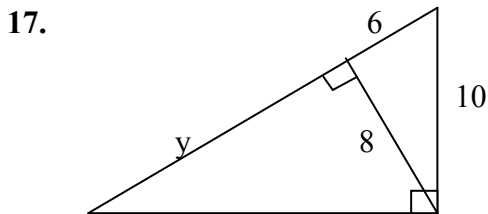


w = \_\_\_\_\_ x = \_\_\_\_\_

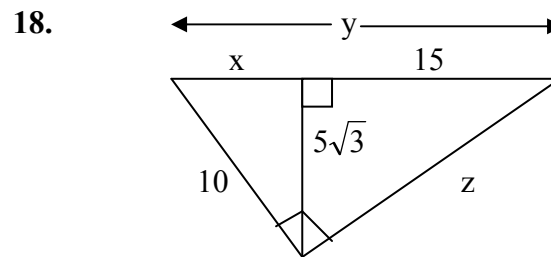
y = \_\_\_\_\_ z = \_\_\_\_\_



x = \_\_\_\_\_ y = \_\_\_\_\_ z = \_\_\_\_\_



x = \_\_\_\_\_ y = \_\_\_\_\_



x = \_\_\_\_\_ y = \_\_\_\_\_ z = \_\_\_\_\_