## **Geometric Mean – Right Triangles**

A geometric mean is a proportion in which the second and third term, means, are equal.

Ex.  $\frac{1}{3} = \frac{3}{9}$ , 3 is geometric mean.

## 1. altitude drawn to hypotenuse divides the hypotenuse into 2 segments,

- a. the altitude is geo mean of the 2 segments
- b. length of the leg of rt  $\Delta$  is geo mean between hypotenuse and segment of hypotenuse that is adjacent to the leg.



a. 
$$\frac{AD}{CD} = \frac{CD}{BD}$$
 b.  $\frac{AB}{AC} = \frac{AC}{AD}$ 

1. Find AD



2. Find CD



3. Find BD



$$AB = 12$$

4. Find AD





5. Find the value of x, y, and z.

