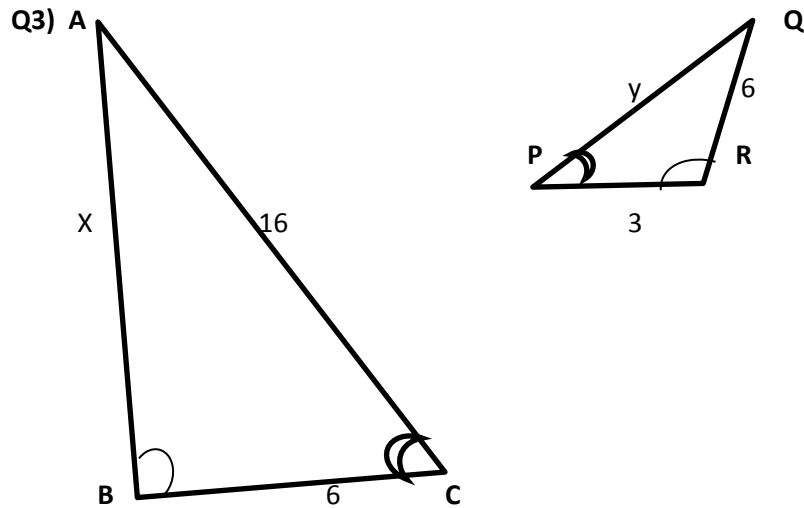


## Assignment Problems:

### Chapter 4 ; Geometry - Similarity

#### Exercise 7:



Here, In  $\triangle ABC \sim \triangle PQR$   $\angle B = \angle R$  and  $\angle C = \angle P$

$$AB/QR = AC/PQ = BC/PR$$

$$x/6 = 16/y = 6/3$$

Comparing first & third ratios;

$$x/6 = 6/3$$

$$x = 2 \times 6 = 12 \text{ cm}$$

Comparing second & third ratios;

$$16/y = 6/3$$

$$y = (16 \times 3)/6 = 8 \text{ cm}$$

Q5)

Solution;

Here triangles  $XBD$  &  $XAC$  are similar

$$(3/5) = (y/10)$$

$$5y = 10 \times 3$$

$$Y = (10 \times 3)/5$$

$$Y = 30/5 = 6 \text{ cm}$$

### **Q8) Solution;**

Here, triangles ABE & ACD are similar

$$(y/6) = (6/4)$$

$$Y = 36/4$$

$$Y = 9 \text{ cm}$$

$$(y-1) / x = 6/10$$

$$10(y-1) = 6x$$

$$10(9 - 1) = 6x$$

$$10(8) = 6x$$

$$80 = 6x$$

$$X = 80/6$$

$$X = 13(1/3) \text{ cm}$$

### **Q10) Solution;**

Triangles PQT & PRS are similar

$$z/3 = 8/5$$

$$z = (8 \times 3)/5$$

$$z = 24/5 = 4(4/5) \text{ cm}$$

$$z = 4(4/5) \text{ cm}$$

$$m/(m-2) = 8/5$$

$$5m = 8(m - 2)$$

$$5m = 8m - 16$$

$$3m = 16$$

$$m = 16/3$$

$$m = 5\frac{1}{3}\text{cm}$$