

# 3-3.2-27

AI24BTECH11015 - Harshvardhan Patidar

Question:

Draw a right triangle  $ABC$  in which  $BC = 12$  cm,  $AB = 5$  cm and  $\angle B = 90^\circ$ .

**Solution:**

Variable	Parameter	Value
$BC$	a	12 cm
$AB$	c	5 cm
$AC$	b	-
$\angle B$	-	$90^\circ$

TABLE 0

We need to find side b. Using the Pythagoras Theorem, we have:

$$b^2 = a^2 + c^2 \quad (0.1)$$

$$b^2 = 12^2 + 5^2 \quad (0.2)$$

$$b^2 = 144 + 25 \quad (0.3)$$

$$b^2 = 169 \quad (0.4)$$

$$b = \sqrt{169} \quad (0.5)$$

$$b = 13\text{cm} \quad (0.6)$$

Thus, the length  $b$  of side  $AC$  is 13 cm.

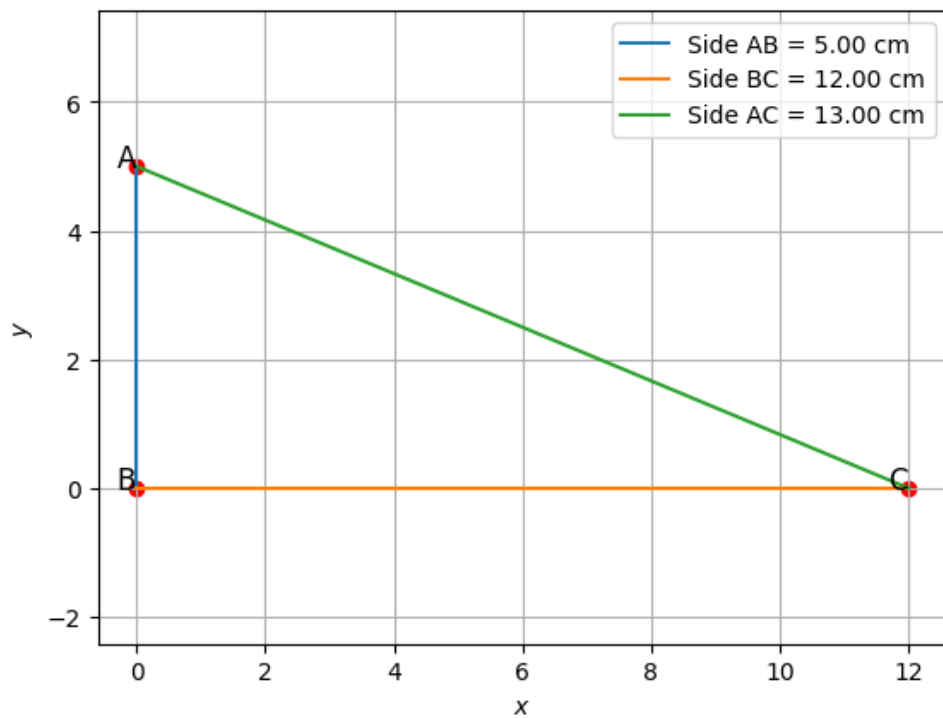


Fig. 0.1