

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°

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.

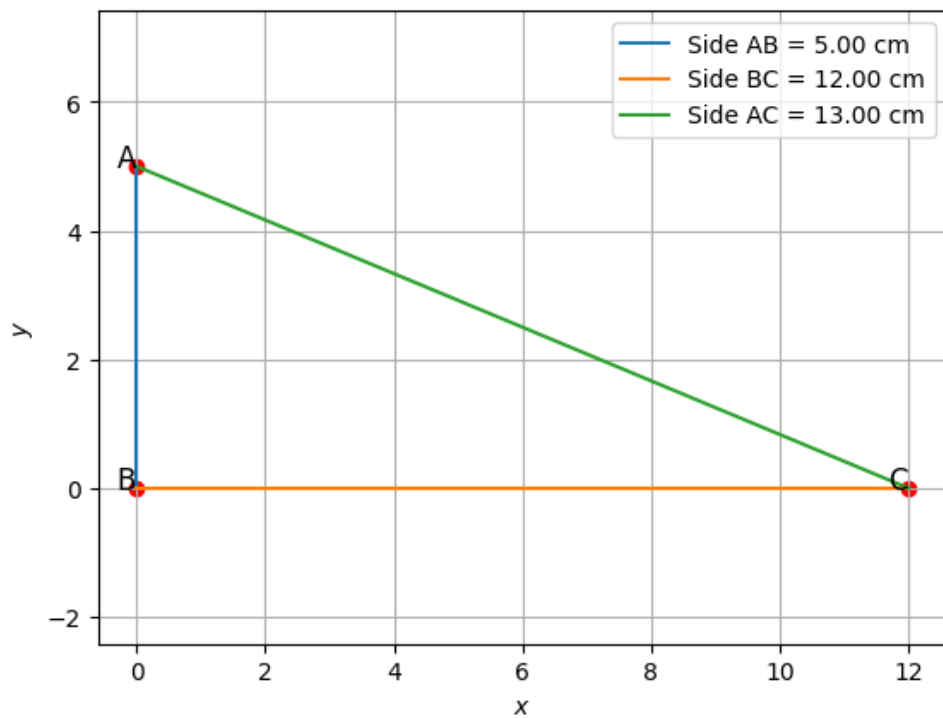


Fig. 0.1