Worksheet -9 Subject: - Mathematics Class: - VIII Teacher: - Ms. Neeru

Name: _____ Class & Sec: _____ Roll No. _____ Date: __.08.2020

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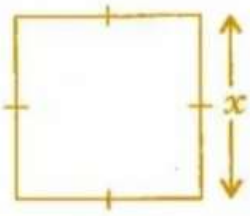
# Exercise 6.4

**Question 6:**

Find the length of the side of a square whose area is 441 m²

**Answer 6:**

Let the length of side of a square be $x$ meter.




Area of square = $(\text{side})^2 = x^2$

According to question, $x^2 = 441$

$\Rightarrow \quad x = \sqrt{441} = \sqrt{3\times3\times7\times7} = 3 \times 7$

$\Rightarrow \quad x = 21$ m

Hence, the length of side of a square is 21 m.

**Question 7:**

In a right triangle ABC, $\angle B = 90^\circ$.

(i) If AB = 6 cm, BC = 8 cm, find AC.

(ii) If AC = 13 cm, BC = 5 cm, find AB.

**Answer 7:**

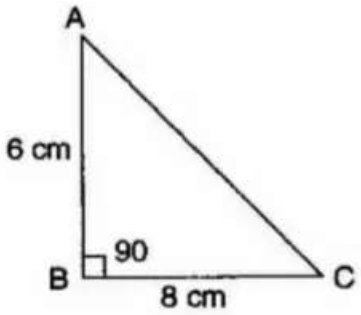
(i) Using Pythagoras theorem,

$AC^2 = AB^2 + BC^2$

$\Rightarrow \quad AC^2 = (6)^2 + (8)^2$

$\Rightarrow \quad AC^2 = 36 + 84 = 100$

$\Rightarrow \quad AC = 10$ cm




(ii) Using Pythagoras theorem,

$AC^2 = AB^2 + BC^2$

$\Rightarrow \quad (13)^2 = AB^2 + (5)^2$

$\Rightarrow \quad 169 = AB^2 + 25$

$\Rightarrow \quad AB^2 = 169 - 25$

$\Rightarrow \quad AB^2 = 144$

$\Rightarrow \quad AB = 12$ cm