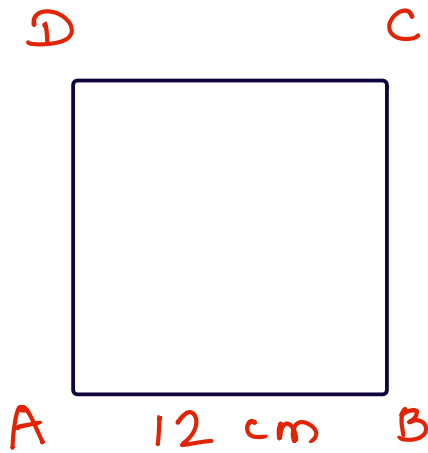


Practice Set 45

1. If the side of a square is 12 cm, find its area.

Soln:-



For square,

$$\text{Side} = 12 \text{ cm}$$

Area of the square

$$= (\text{Side})^2$$

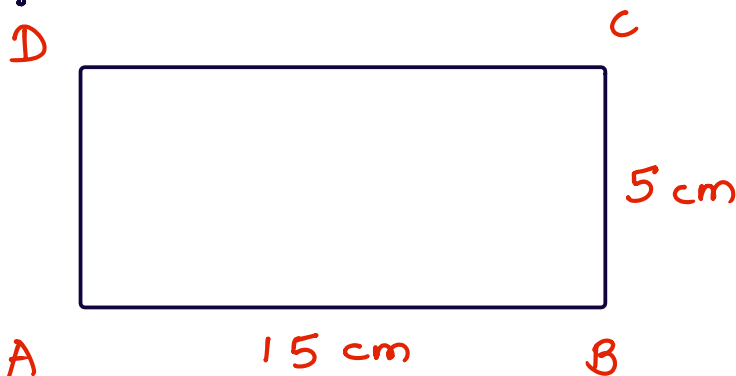
$$= (12)^2$$

$$= 12 \times 12$$

$$\text{Area of the square} = 144 \text{ cm}^2$$

2. If the length of a rectangle is 15 cm and breadth is 5 cm, find its area.

Soln:-



For rectangle,

$$l = 15 \text{ cm}$$

$$b = 5 \text{ cm}$$

$$A = ?$$

Now,

$$\begin{aligned}\text{Area of Rectangle} &= l \times b \\ &= 15 \times 5\end{aligned}$$

$$\text{Area of Rectangle} = 75 \text{ cm}^2$$

3. The area of a rectangle is 102 sqcm. If its length is 17 cm, what is its perimeter ?

Solⁿ:- For rectangle,

$$A = 102 \text{ sq.cm}$$

$$l = 17 \text{ cm}$$

Perimeter = ?

$$\begin{aligned}\text{Now, Area of Rectangle} &= l \times b\end{aligned}$$

$$102 = 17 \times b$$

$$\therefore b = \frac{102}{17}$$

$$\therefore b = 6 \text{ cm}$$

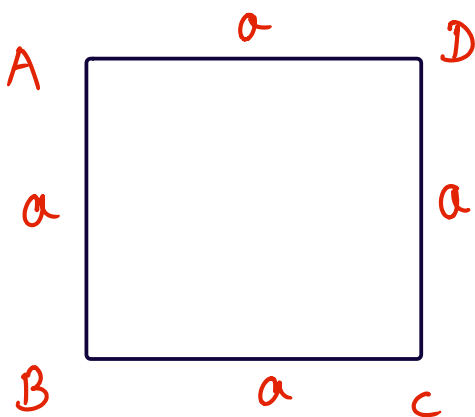
Also,

$$\begin{aligned}\text{Perimeter of Rectangle} &= 2(l+b) \\ &= 2(17+6) \\ &= 2 \times 23\end{aligned}$$

$$\begin{aligned}\text{Perimeter of Rectangle} &= 46 \text{ cm}\end{aligned}$$

4*. If the side of a square is tripled, how many times will its area be as compared to the area of the original square ?

Solⁿ:- i) For old square:-



Let, the side of the

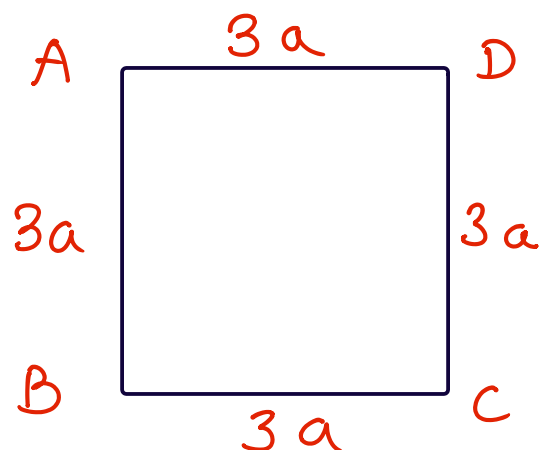
square be 'a'.

∴ The area of the old

square is $= a^2$

ii) For New square :-

Now, the side of the square is tripled.



$$\therefore \text{side} = 3 \times a = 3a$$

$$\begin{aligned}\therefore \text{Area of the} &= (3a)^2 \\ \text{new square} &= 9a^2 \\ &= 9 \times a^2\end{aligned}$$

$$\text{Area of the new square} = 9 \times \text{Area of the old square}$$

\therefore The area of the new square will be 9 times the area of the old square.