**Exercise 10.3**

**1. Find the area of the rectangles whose sides are:**

**(a) 3 cm and 4 cm**

**(b) 12 m and 21 m**

**(c) 2 km and 3 km**

**(d) 2 m and 70 cm**

**Solutions:**

We know that

Area of rectangle = length × breadth

(a) l = 3 cm and b = 4 cm

Area = l × b = 3 × 4

= 12 cm2

(b) l = 12 m and b = 21 m

Area = l × b = 12 × 21

= 252 m2

(c) l = 2 km and b = 3 km

Area = l × b = 2 × 3

= 6 km2

(d) l = 2 m and b = 70 cm = 0.70 m

Area = l × b = 2 × 0.70

= 1.40 m2

**2. Find the areas of the squares whose sides are:**

**(a) 10 cm**

**(b) 14 cm**

**(c) 5 m**

**Solutions:**

(a) Area of square = side2

= 102

= 100 cm2

(b) Area of square = side2

= 142

= 196 cm2

(c) Area of square = side2

= 52

=25 cm2

**3. The length and breadth of the three rectangles are as given below:**

**(a) 9 m and 6 m**

**(b) 17 m and 3 m**

**(c) 4 m and 14 m**

**Which one has the largest area, and which one has the smallest?**

**Solutions:**

(a) Area of rectangle = l × b

= 9 × 6

= 54 m2

(b) Area of rectangle = l × b

= 17 × 3

= 51 m2

(c) Area of rectangle = l × b

= 4 × 14

= 56 m2

Option (c), the rectangle with an area of 56 m2, has the largest area, and option (b), the rectangle with an area of 51 m2, has the smallest area.

**4. The area of a rectangular garden 50 m long is 300 sq m. Find the width of the garden.**

**Solutions:**

Area of rectangle = length × width

300 = 50 × width

width = 300 / 50

width = 6 m

∴ The width of the garden is 6 m.

**5. What is the cost of tiling a rectangular plot of land 500 m long and 200 m wide at the rate of ₹ 8 per 100 sq m?**

**Solutions:**

Area of land = length × breadth

= 500 × 200

= 1,00,000 m2

∴ Cost of tiling 1,00,000 sq m of land = (8 × 1,00,000) / 100

= ₹ 8000

**6. A table top measures 2 m by 1 m 50 cm. What is its area in square metres?**

**Solutions:**

Given

l = 2 m

b = 1 m 50 cm = 1.50 m

Area = l × b = 2 × 1.50

= 3 m2

**7. A room is 4 m long and 3 m 50 cm wide. How many square metres of carpet are needed to cover the floor of the room?**

**Solutions:**

Given

l = 4m

b = 3 m 50 cm = 3.50 m

Area = l × b = 4 × 3.50

= 14 m2

**8. A floor is 5 m long and 4 m wide. A square carpet of sides 3 m is laid on the floor. Find the area of the floor that is not carpeted.**

**Solutions:**

Area of floor = l × b = 5 × 4

= 20 m2

Area of square carpet = 3 × 3

= 9 m2

Area of floor that is not carpeted = 20 – 9

= 11 m2

∴ The area of the floor that is not carpeted is 11 m2.