NCERT Solutions For Class 7 Maths Perimeter and Area Exercise 11.1

Q1. The length and the breadth of a rectangular piece of land are 500 m and 300 m respectively. Find

(i) its area

(ii) the cost of the land, if 1 m2 of the land costs Rs 10,000.

Ans:

(i) Area = Length x Breadth

= 500 x 300

= 150000 m2

(ii) Cost of 1 m2 land = Rs 10000

Cost of 150000 m2 land = 10000 x 150000 = Rs 1500000000

Q2. Find the area of a square park whose perimeter is 320 m.

Ans:

Perimeter = 320 m

4 × Length of the side of park = 320

Length of the side of park = $\dfrac{320}{4}$ = 80 m

Area = (Length of the side of park)2 = (80)2 = 6400 m2

Q3. Find the breadth of a rectangular plot of land, if its area is 440 m2 and the length is 22 m. Also find its perimeter.

Ans:

Area = Length × Breadth = 440 m2

22 × Breadth = 440

Breadth = $\dfrac{440}{22}$ = 20 m

Perimeter = 2 (Length + Breadth)

= 2 (22 + 20) = 2 (42) = 84 m2

Q4. The perimeter of a rectangular sheet is 100 cm. If the length is 35 cm, find its breadth. Also find the area.

Ans:

Perimeter = 2 (Length + Breadth) = 100 cm

2 (35 + Breadth) = 100

35 + B = 50

B = 50 - 35 = 15 cm

Area = Length x Breadth = 35 x 15 = 525 cm^2

Q5. The area of a square park is the same as of a rectangular park. If the side of the square park is 60 m and the length of the rectangular park is 90 m, find the breadth of the rectangular park.

Ans:

Area of square park = (One of its sides)^2 = (60)^2 = 3600 m^2

Area of rectangular park = Length x Breadth = 3600

90 x Breadth = 3600

Breadth = 40 m

Q6. A wire is in the shape of a rectangle. Its length is 40 cm and breadth is 22 cm. If the same wire is rebent in the shape of a square, what will be the measure of each side. Also find which shape encloses more area?

Ans:

Perimeter of rectangle = Perimeter of square

2 (Length + Breadth) = 4 × Side

2 (40 + 22) = 4 × Side

2 × 62 = 4 × Side

Side $= \dfrac{124}{4} = 31$ cm

Area of rectangle = 40 × 22 = 880 cm^2

Area of square = (Side)^2 = 31 × 31 = 961 cm^2

Therefore, the square-shaped wire encloses more area.

Q7. The perimeter of a rectangle is 130 cm. If the breadth of the rectangle is 30 cm, find its length. Also find the area of the rectangle.
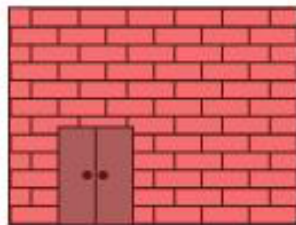
Ans:

Perimeter = 2 (Length + Breadth) = 130

2 (Length + 30) = 130

Length + 30 = 65

Length = 65 - 30 = 35 cm

Area = Length x Breadth = 35 x 30 = 1050 cm2

Q8. A door of length 2 m and breadth 1 m is fitted in a wall. The length of the wall is 4.5 m and the breadth is 3.6 m (see the given figure). Find the cost of white washing the wall, if the rate of white washing the wall is Rs 20 per m2.

Ans:

Area of wall = 4.5 x 3.6 = 16.2 m2

Area of door = 2 x 1 = 2 m2

Area to be white-washed = 16.2 - 2 = 14.2 m2

Cost of white-washing 1 m2 area = Rs 20

∴Cost of white-washing 14.2 m2 area = 14.2 x 20 = Rs 284

********** END *********