20 Perimeter and Area of Plane Figures

Q1. Find the perimeter of a square whose:

a. side is 4 cm

Perimeter = _____

b. area is 324 cm^2

Perimeter = _____

Q2. Find the perimeter of a rectangle whose:

a. length = 4 cm, breadth = 2.4 cm

Perimeter = _____

b. length = 9 cm, area = 36 cm^2

Perimeter = _____

Q3. Rashi has a square garden whose perimeter is 116 m. Find the area of the garden.
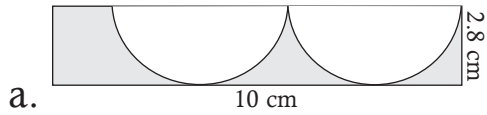
Area of the garden = _____

Q4. The length of a rectangle is thrice its breadth. If the perimeter of the rectangle is 72 cm, find the area of the rectangle.

Area of the rectangle = _____ cm^2

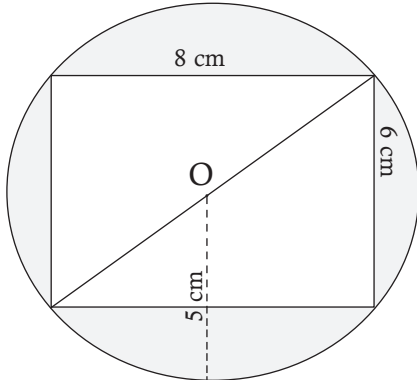**Q5.** A footpath 16.4 m long and 2 m wide is to be paved with rectangular tiles measuring 20 × 40 cm, find the number of tiles required to cover the floor.

Answer: _____

Q6. Find the area of the shaded region:

a.

10 cm, 2.8 cm
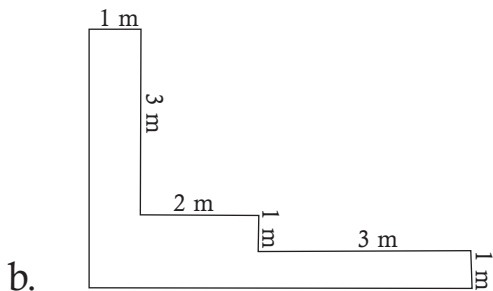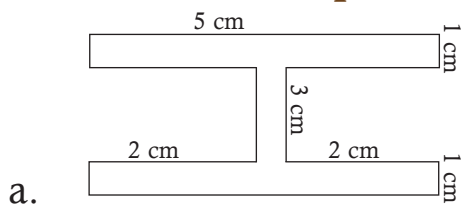
Area = _____

b.

8 cm, 6 cm, 5 cm, O

Area = _____

Q7. Harish's field is 24 m long and 18 m wide. He wants to leave 0.5 m from each side for putting up a fence and level the rest of the field. If the cost of levelling is 35 paise per square metre, find the cost of levelling Harish's field.

Answer: _____

Q8. A goat is tied by a rope to a pole which is in the centre of a circular field whose radius is 6.3 m. If the length of the rope is 2.8 m, find the area that is inaccessible to the goat.

Area inaccessible to the goat = _____

Q9. Find the area and perimeter of the following figure:

a.

5 cm, 1 cm, 3 cm, 2 cm, 2 cm, 1 cm

b.

1 m, 3 m, 2 m, 1 m, 3 m, 1 m

Q10. Choose the correct option:

a. The height h of a triangle is twice its base b. The area of the triangle is:

   i. $2b$

   ii. b^2

   iii. $2h^2$

b. The base b and height h of a triangle are in the ratio 2 : 3. If the base of the triangle is 10 cm, its area will be:

   i. 150 cm²

   ii. 25 cm²

   iii. 75 cm²

Answers

1. a. 16 cm; b. 72 cm
2. a. 12.8 cm; b. 26 cm
3. 841 m^2
4. 243 cm^2
5. 410 tiles
6. a. 3.3824 cm^2; b. 30.5 cm^2
7. ₹136.85
8. 100.009 m^2
9. a. Area=13 cm^2 , Perimeter =28 cm ; b. Area=12 m^2 , Perimeter = 22 m
10. a. (ii); b. (iii)