



# MATHS

# **BOOKS - SWAN PUBLICATION**

# PERIMETER AND AREA



 Find the perimeter and the area of a rectangle having
Length = 28 cm, Breadth = 15 cm



2. Find the perimeter and the area of a

rectangle having

Length =9.4 cm, Breadth = 2.5 cm



3. Find the perimeter and the area of a square

whose side measures

29 cm





## 4. Find the perimeter and the area of a square

whose side measures

8.3 cm

Watch Video Solution

5. The perimeter of a square park is 148 m.

Find its area.

**6.** The area of a rectangle is 580  $cm^2$ `. Its length is 29 cm. Find its breadth and also, the perimeter.



**7.** A wire is in the shape of a rectangle. Its length is 48cm and breadth is 32cm. If the same wire is rebent into the shape of a square, what will be the measure of each side. Also find which shape encloses more area and by

how much ?



8. The area of a square park is the same as that of a rectangular park. If the side of the square park is 75m. and the length of the rectangular park is 125m, find the breadth of the rectangular park. Also, find the perimeter of rectangular park. **9.** A door of length 2.5 m and breadth 1.5 m is fitted in a wall. The length of wall is 9 m and breadth 6 m. Find the cost of painting the wall, if the rate of painting the wall is Rs. 30 per  $m^2$ .





**10.** A door of dimensions  $3m \times 2m$  and a window of dimensions  $2.5m \times 1.5m$  is fitted in a wall. The length of the wall is 7.8m and breadth is 3.9m. Find the cost of painting the wall, if the rate of painting the wall is Rs. 25 per  $m^2$ .

Watch Video Solution

**11.** Find the area and the perimeter of the following figures.



# Watch Video Solution

**Exercise 11 1 Multiple Chocie Questions** 

**1.** What is the area of a rectangle of dimensions 12cm  $\times$  10 cm?

A.  $44cm^2$ 

 $\mathsf{B}.\,120 cm^2$ 

 $\mathsf{C.}\,1200cm^2$ 

D.  $1440 cm^2$ 

Answer: B



**2.** Find the breadth of a rectangle whose length is 12cm and perimeter is 36cm.

A. 6 cm

B. 3 cm

C. 9 cm

D. 12 cm

#### Answer: A





### 3. If each side of a square is 1m then its area is

?

A. 10  $cm^2$ 

 $\mathsf{B}.\,100 cm^2$ 

 $\mathsf{C}.\,1000 cm^2$ 

D.  $10000cm^2$ 

### Answer: D

**4.** Find the area of a square whose perimeter is 96cm.

A.  $576cm^2$ 

 $\mathsf{B.}\,626cm^2$ 

 $\mathsf{C.}\,726cm^2$ 

D.  $748 cm^2$ 

Answer: A

**5.** The area of a rectangular sheet is 500  $cm^2$ . If the length of the sheet is 25 cm, What is its width ?

A. 30 cm

B. 40 cm

C. 20 cm

D. 25 cm

#### Answer: C



**6.** What happens to the area of a square, if its side is doubled ?

A. The area becomes 4 times, the area of

original square.

B. The area becomes  $\frac{1}{4}$  times, the area of

original square.

C. The area becomes 16 times, the area of

original square.

D. The area becomes  $\frac{1}{6}$  times, the area of

original square.

Answer: A

> Watch Video Solution

Exercise 11 2

1. Estimate the area of the following figures by

counting unit squares



Watch Video Solution

2. In the following figures find the area of

 $\Delta ABC$ 



## 3. In the following figures find the area of

 $\Delta COD$ 







**6.** Find the value of x in the following parallelograms.



**7.** Find the value of x in the following parallelograms.



**8.** The adjacent sides of a paralelogram are 28cm and 45cm and the altitude on longer side is 18cm. Find the area of parallelogram.



**9.** ABCD is a parallelogram given in figure. DN and DM are the altitudes on side AB and CB respectively. If area of the parallelogram is  $1225 \ cm^2$ , AB = 35cm and CB = 25cm, find DN and DM.



### **10.** Find the area of the following triangles



### 11. Find the area of the following triangles



**12.** Find the value of x in the following triangles.



**13.** Find the value of x in the following triangles.



14. Area of a square plot is  $2304m^2$  . Find the

side of the square plot.

Watch Video Solution

**15.**  $\Delta ABC$  is right angled at A as shown in figure. AD is prependicular to BC, if AB = 9cm, BC = 15cm and AC = 12cm. Find the area of  $\Delta ABC$ , also find the length of AD.

**16.**  $\triangle$  ABC is isosceles with AB = AC = 7.5 cm and BC = 9 cm. The height AD from A to BC is 6 cm find the area of  $\triangle$  ABC What will be the height from C to AB.i.e, CE?

Watch Video Solution

**Exercise 11 2 Multiple Choice Questions** 

1. Find the base of parallelogram whose are is

400 cm<sup>2</sup> and whose height is 8 cm.

A.  $1.23cm^2$ 

B.  $13.2 cm^2$ 

 $\mathsf{C}.\,12.3cm^2$ 

 $\mathsf{D}.\,1.32cm^2$ 

Answer: C

Watch Video Solution

**2.** One of the sides and the corresponding height of a parallelogram are 4 cm and 3 cm respectively. Find the area of the

### parallelogram



- A.  $21cm^2$
- $\mathsf{B}.\,24.5 cm^2$
- $\mathsf{C.}\,21.5 cm^2$
- $\mathsf{D.}\,24cm^2$

#### Answer: B



3. The height of a triangle whose base is 13cm

and area is  $65cm^2$  is.

A. 12 cm

B. 15 cm

C. 10 cm

D. 20 cm

Answer: C

**4.** Find the area of an isosceles right angled triangle, whose equal sides are of length 40cm each.

A.  $400 cm^2$ 

 $\mathsf{B.}\,200 cm^2$ 

 $\mathsf{C.}\,600 cm^2$ 

D.  $800cm^2$ 

#### Answer: D

**5.** A field in the form of a parallelogram has sides 60 m and 40 m and one of its diagonals is 80 m long. Find the area of te parallelogram.

A. 1.5 times

B. 2 times

C. 3 times

D. 4 times

Answer: B

6. In a right angled triangle ..... is the longest

side.

A. 8 cm

B. 16 cm

C. 24 cm

D. 32 cm

Answer: A

1. Find the circumference of circle whose

Radius (r) = 3.5 cm

Watch Video Solution

**2.** Circumference of circle  $=2\pi d$ 

3. The circumference of a circle of diameter

10cm is

Watch Video Solution

4. If the circumference of a circular sheet is

176m, find its radius.


**5.** A circular disc of diamter 8.4 cm is divided into two parts what is the perimeter of each semicircular part?



# 6. Find the area of the circle having

Radius r = 49 cm



7. Find the area of the circle having

Radius r = 2.8 cm

Watch Video Solution

8. Find the area of the circle having

Radius r = 4.2 cm

Watch Video Solution

9. A gardener wants to fence a circular garden of radius 15m. Find the length of wire, if he makes three rounds of fence. Also, find the cost of wire if it costs Rs. 5 per meter (Take  $\pi = 3.14$ )

Watch Video Solution

10. Which of the following has larger area and

by how much?

(a) Rectangle with length 15cm and breadth

5.4cm

(b) Circle of diameter 5.6cm.



**11.** From a rectangular sheet of length 15cm and breadth 12cm a circle of radius 3.5cm is removed. Find the area of remaining sheet.



**12.** From a circular sheet of radius 7cm, a circle

of radius 2.1cm is removed, find the area of remaining sheet.



**13.** Smeep took a wire of length 88cm and bent it into the shape of a circle, find the radius and area of the circle. If the same wire is bent into a square, what will be the side of the square ? Which figure encloses more area ?



**14.** A garden is 120m long and 85m broad. Inside the garden, there is a circular pit of diameter 14m. Find the cost of planting the remaining part of the garden at the rate of Rs. 5.50 per square meter.

Watch Video Solution

**15.** In the figure PQ = QR and PR = 56cm. The radius of inscribed circle is 7cm. Q is centre of

semi circle. What is the area of shaded region



**16.** The minute hand of a circular clock is 18cm long. How far does the tip of minute hand move in one hour ?



Watch Video Solution

# **Exercise 11 3 Multiple Choice Questions**

- **1.** The circumference of a circle of diameter 10cm is
  - A. 31.4cm
  - B. 3.14cm
  - C. 314cm
  - D. 35.4cm





# **2.** The circumference of a circle with radius 14cm is

A. 88cm

B. 44cm

C. 22cm

D. 85cm





## 3. What is the area of the circle of radius 7cm?

A. 49cm

 $\mathsf{B.}\,22cm^2$ 

 $\mathsf{C.}\,154cm^2$ 

D.  $308 cm^2$ 



**4.** Find the diameter of a circle whose area is  $154cm^2$ 

A. 4 cm

B. 6 cm

C. 14 cm

D. 12 cm





**5.** A circle has area 100 times the area of another circle. What is the ratio of their cirumferences ?

A. 10:1

B.1:10

C. 1:1

D. 2:1

#### Answer: A





**6.** Diameter of a circular garden is 9.8cm. Which of the following is its area?

A. 75.46  $cm^2$ 

B. 76.46  $cm^2$ 

C. 74.4  $cm^2$ 

D. 76.4  $cm^2$ 

#### Answer: A

Watch Video Solution

## Exercise 11 4

**1.** A rectangular park is 45 m long and 30 m wide. A path 2.5 m wide is constructed outside the park. Find the area of the path.

Watch Video Solution

**2.** A rectangular garden is 110m long and 72m broad. A path of uniform width 8m has to be

constructed around it. Find the cost of

gravelling the path at Rs. 11.50 per  $m^2$ .



**3.** A room is 12m long and 8m broad. It is surrounded by a verandah, which is 3m wide all around it. Find the cost of flooring the verandah with marble at Rs. 275 per  $m^2$ .

# Watch Video Solution

**4.** A sheet of paper measures  $30cm \times 24cm$ . A strip of 4cm width is cut from it, all around. Find the area of remaining sheet and also the area of cut out strip.



5. A path of 2m wide is built along the border

inside a square garden of side 40m. Find

(i)The Area of path.

(ii) The cost of planting grass in the remaining

portion of the garden at the rate of Rs. 50 per

 $m^2$ .



**6.** A nursery school play ground is 150m long and 75m wide. A portion of 75m  $\times$  75m is kept for see-saw slides and other park equipments. In the remaining portion 3m wide path parallel to its width and parallel to remaining length (as shown in fig). The remaining area is covered by grass. Find the

#### area covered by grass.





7. Two cross roads each of width 8m cut at right angle through the centre of a rectangular park of length 480m and breadth 250m and parallel to its sides. Find the area of roads. Also, find the area of park excluding cross roads.



8. In a rectangular field of length 92m and breadth 70m, two roads are constructed which are parallel to the sides and cut each other at right angles through the centre of field. If the width of each road is 4m, find.
(i) The area covered by roads.

(ii) The cost of constructing the roads at the rate of Rs. 150 per  $m^2$ .



**9.** Find the area of shaded region of the following figures.



Watch Video Solution

**10.** Find the area of shaded region of the following figures.



Other Important Questions Multiple Choice Questions  Which of the following statement is not true?

A. Perimeter of a regular pentagon= 5  $\, imes\,$ 

length of one side

B. Perimeter of a square=4  $\times$  side

C. Perimeter of a rectangle = Length ~ imes

Breadth

D. Perimeter of a regular hexagon=6 imes

Length of one side



- 2. Which of the following statement is not true?
  - A. Area of circle  $=\pi r^2$
  - B. Area of parallelogram  $=rac{1}{2}$  (Base imes Height)
  - C. Area of rectangle = Length  $\times$  Breadth.
  - D. Area of square=Side  $\times$  Side

#### Answer: B



B. (ii)

C. (iii)

D. All figures have same perimeter

Answer: C

Watch Video Solution

**4.** The area of a rectangular sheet is 500  $cm^2$ . If the length of the sheet is 25 cm, What is its width ?

A. 25 cm

B. 30 cm

C. 20 cm

D. 40 cm

#### Answer: C



# 5. Side of a square park is 80m. What is its

area?

A.  $320m^2$ 

# $\mathsf{B.}\,20m^2$

 $\mathsf{C.}\,6400m^2$ 

 $\mathsf{D.}\,3200m^2$ 





A.  $14cm^2$ 

- $\mathsf{B.}\,56cm^2$
- $\mathsf{C.}\,28 cm^2$
- D.  $42cm^2$



7. What is the area of this triangle ?



A.  $6cm^2$ 

 $\mathsf{B.}\,12cm^2$ 

$$C. 3 cm^2$$

D. 
$$rac{3}{2}cm^2$$



**8.**  $1cm^2 = \dots \dots mm^2$ 

## A. 10

B. 10000

C. 1000

D. 100

#### Answer: D

Watch Video Solution

 $\mathbf{9.}\,1m^2=\ldots\ldots cm^2$ 

#### A. 100

B. 1000

C. 10000

D. 100000



**10.** 1 Hectare  $= \ldots \dots m^2$ 

#### A. 1000

B. 10000

C. 100000

D. 1000000

**Answer: B** 



11. Radius of a circle is 28 cm. What is the

perimeter?

A. 112 cm

B. 176cm

C. 784 cm

D. 7 cm

**Answer: B** 

Watch Video Solution

<b>1.</b> Perimeter of rectangle =
<b>Watch Video Solution</b>
<b>2.</b> Side of square is 2.5 cm Its area will be
Watch Video Solution

**3.** Area of rectangle is 416  $m^2$  and breadth is

16 m. Its length will be ..... m.





**8.** 1km = ..... m


**Other Important Questions True Or False** 

**1.** The area of a square having side 'a' is 4a square units.



**2.** The area of a rectangular plot is 462  $m^2$ . If

its breadth is 21m then its length will be 24 m.

Watch Video Solution

**3.** Side of a square is 1m, its area will be  $2m^2$ .





5. An equilateral triangle has all sides of different length.



6. Line segment joining any two points on

circumference of circle is called chord.

