IX Class

PRACTICE MATERIAL

I. One mark questions :

1. A garden is in the shape of a rectangle. Its length and breadth are 98 cm and 57 cm. Find its perimeter.
2. Find the area of equilateral triangle if side is 2 cm.
3. The lengths of the perpendicular sides of a right angled triangle are 24cm and 70 cm. Find the length of its hypotenuse.
4. The area of an isosceles right angled triangle is 98sq.cms. Find its perpendicular sides.
5. Show that the diagonal of a square is $\sqrt{2}$ times to its side.
6. Area of the square is 98sq.cms. Find its diagonal.
7. The length and breadth of a rectangle are in the ratio 2: 1. If area is 50cms, find its length and breadth.
8. In a right angled triangle whose sides are 5cm and 12cm. Find the maximum area of a rectangle constructed in it.
9. The perimeter of a rectangle is 100cm, its length is 32cm. Find its breadth.
10. The area of a circle is 616sq. cm. Find its radius.
11. Find the perimeter of a semicircle if its radius is 3.5 cm.
12. The radii of the concentric circles are 10.5cm, 7cm. Find the width of the ring.
13. The length of an arc of a sector is 12cm and radius is 7cm. Find the area of the sector.
14. The angles of quadrilateral are x^0, $(x + 10)^0$, $(x +20)^0$and $(2x – 30)^0$. Find the value of 'x'.
15. The parallel sides of a trapezium are 12cm, 8cm and the distance between them is 6.4cm. Find the area of the trapezium.

II **Choose the correct answer:**

16. The sides of triangle are 8cm, 5cm and 3cm then it is _____triangle [ ]

a)scalene b)Isosceles c)Equilateral d)None

17. The area of an equilateral triangle whose height is 'h' [ ]

a) $\frac{\sqrt{3}}{2}h^2$ b) $\frac{2h}{\sqrt{3}}$ c) $\frac{h^2}{\sqrt{3}}$ d)None

18. The ratio of sides of a triangle is $1:\sqrt{3}:2$ then it is [ ]

a)Scalene b)Isosceles c)Right angled triangle d)None

19. The perimeter of a right angled Isosceles triangle is 90cm and its hypotenuse is 39 cm , other two sides are [ ]

a) 15cm, 36cm b) 25.5cm, 25.5cm c) 28cm , 18cm d) None

20. The angles of a triangle are 45^0, 45^0 and 90^0 then the ratio of sides is [ ]

a) $1:\sqrt{3}:2$ b) 1 : 1 : 1 c) 1 : 1 : $\sqrt{2}$ d) 1 : 2 : $\sqrt{3}$

21. The side of a square is 3cm then .its diagonal is [ ]

a)$2\sqrt{3}$ b)$3\sqrt{2}$ c) $2/\sqrt{3}$ d) $3/\sqrt{2}$

22. In a square PQRS, PR is the diagonal then $\angle$QPR = [ ]

a)45^0 b)90^0 c)60^0 d)None

23. If the side of a square is doubled, then its area becomes ___ times the original area [ ]

a) 2 b) 4 c) 3 d) 8

24. A circle and a square each has a perimeter of 44cm. Which has a bigger area? [ ]

a) Circle b) Square c) Equal area d) None [ ]

25. The diagonals of a rhombus are 16 cm and 12cm respectively, then its altitude is [ ]

a) 64 cm b)10 cm c) 96cm d) 32cm

26. The angle between the diagonals of a rhombus is [ ]

a)45^0 b) 90^0 c) 60^0 d) 180^0

27. The area of a parallelogram is $40cm^2$ and its base is 8cm. Then its height [ ]

a) 10cm b) 8cm c) 4cm d) 5cm

28. Sum of the adjacent angles of a parallelogram is [ ]

a)90^0 b)120^0 c)360^0 d)180^0

29. The angle subtended at the centre of a circle of radius 14cm by an arc of length 22cm is

a) 60^0 b)120^0 c) 90^0 d)135^0 [ ]

30. The diameter of a wheel is 14cm, how far will it travel in 10 revolutions? [ ]

a) 8.8cm b) 880cm c) 220cm d) None

31. Area of a circle whose diameter is 'd ' is [ ]

a) $\frac{\pi d^2}{4}$ b) πd^2 c) πd d) None

II. Fill in the blanks

32. The angles of a triangle are 60^0, 60^0, 60^0 then it is _____

33. Semi perimeter of a triangle with side 3cm, 5cm and 8cm is _____

34. Area of a square is $16p^2$ sq.cm then its perimeter is _____

35. The ratio between side and diagonal of a square is _____

36. Perimeter of a semicircle is 18cm, then its radius is _____

37. The circumference of a circle (C) is 2π r then radius (r) =_____

38. The ratio between circumference and diameter of a circle is _____

39. The angle of a sector is 60^0 and radius is 7cm, then its area is _____