8th chapter Introduction of Graph

1. If y – coordinate of a point is zero, then this point always lies:

(a) I quadrant   (b) II quadrant   (c) x – axis   (d) y – axis

2. If x – coordinate of a point is zero, then this point always lies:

(a) I quadrant   (b) II quadrant   (c) x – axis   (d) y – axis

3. Point (–6, 4) lies in the quadrant:

(a) I   (b) II   (c) III   (d) IV

4. The point (–4, –3) means:

(a) x = –4, y = –3   (b) x = –3, y = – 4   (c) x = 4, y = 3   (d) None of these

5. Point (0, 4) lies on the:

(a) I quadrant   (b) II quadrant   (c) x – axis   (d) y – axis

6. Point (5, 0) lies on the:

(a) I quadrant   (b) II quadrant   (c) x – axis   (d) y – axis

7. On joining points (0, 0), (0, 2), (2,2) and (2, 0) we obtain a:

(a) Square   (b) Rectangle   (c) Rhombus   (d) Parallelogram

8. Point (–2, 3) lies in the:

(a) I quadrant   (b) II quadrant   (c) III quadrant   (d) IV quadrant

9. Point (0, –2) lies:

(a) on the x-axis   (b) in the II quadrant   (c) on the y-axis   (d) in the IV quadrant

10. Abscissa of the all the points on x – axis is:

(a) 0   (b) 1   (c) –1   (d) any number

11. Ordinate of the all the points on x – axis is:

(a) 0   (b) 1   (c) –1   (d) any number

12. Abscissa of the all the points on y – axis is:

(a) 0   (b) 1   (c) –1   (d) any number

13. Ordinate of the all the points on y – axis is:

(a) 0   (b) 1   (c) –1   (d) any number

14. The point whose ordinate is 4 and which lies on y – axis is:

(a) (4, 0)   (b) (0, 4)   (c) (1, 4)   (d) (4, 2)

15. The perpendicular distance of the point P(3,4) from the y – axis is:

(a) 3   (b) 4   (c) 5   (d) 7

1.(c)	2.(d)	3. (b)	4. (a)	5. (d)
6. (c)	7. (a)	8. (b)	9. (c)	15. (a)
10. (a)	11.	12. (d)	13. (a)	14. (d)

2 or 3 marks

11. Draw the graph of y = 3x. From the graph, find the value of y when (i) x = 4 and (ii) x =5.

12. Consider the relation between the perimeter and the side of a square, given by P = 4a. Draw a graph to show this relation. From the graph, find the value of P when (i) a = 4 and (ii) a =5.

13. Consider the relation between the area and the side of a square, given by A = x^2. Draw a graph to show this relation. From the graph, find the value of P when x = 4.

14. Simple interest on a certain sum is Rs. 40 per year then S = 40x, where x is the number of years. Draw a graph of this relation. From the graph, find the value of S when (i) x = 5 and (ii) x =6.

15. Plot the points (0, 2), (3, 0), (–3, 0) and (0, –2) in the graph sheet. Join these points. Name the figure obtained and find the area of the figure so obtained.

16. Draw graph for:

(a) $x^2 + 2x - 1$ (b) $2x + y = 3$ (c) $y = 3x + 2$ (d) $y = x$ (e) $x = 5$ (e) $y = 4$

17. Find the area of triangle OAB with 0(0,0), A(4,0) & B(0,6)

18. Find the mirror images of the following point using x-axis & y-axis as mirror.

(i) A (2,3) (ii) B(2, −3) (iii) C(−2,3) (iv) D(−2, −3)

19. Draw a triangle with vertices $O(0,0)$ $A(3,0)$ $B(3,4)$. Classify the triangle and also find its area.

20. Draw a quadrilateral with vertices $A(2,2)$ $B(2, -2)$ $C(-2, -2), D(-2,2)$.   classify the quadrilateral and also find its area.

21. A bank gives 20% interest on deposits. Draw a graph to illustrate the relation between the number of years and the simple interest earned when the sum deposited is Rs 100.

22. Plot the graphs for the values of the following table:

(a) Cost of oranges

Number of oranges	1	5	7	12	15
Cost (in Rs)		3	15	21	36	45

(b) Distance travelled by a car and time taken

Distance (in km)	40	70	100	140	190	250
Time (in hours)	1	2	3	4	5	6

24. The following graph shows the side of a square and its perimeter. Read the graph and answer the following questions:
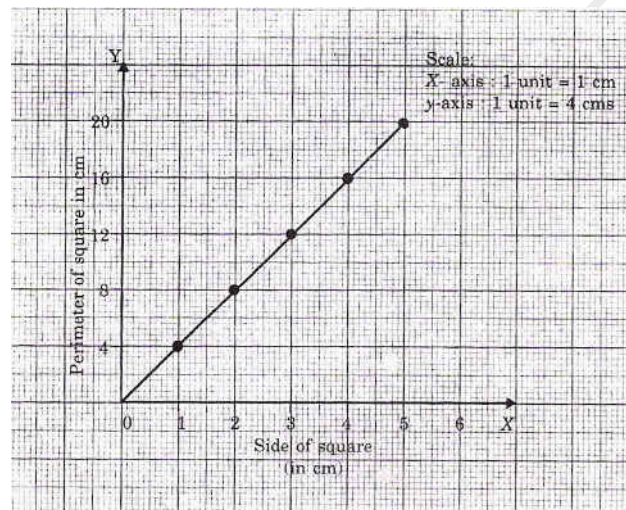
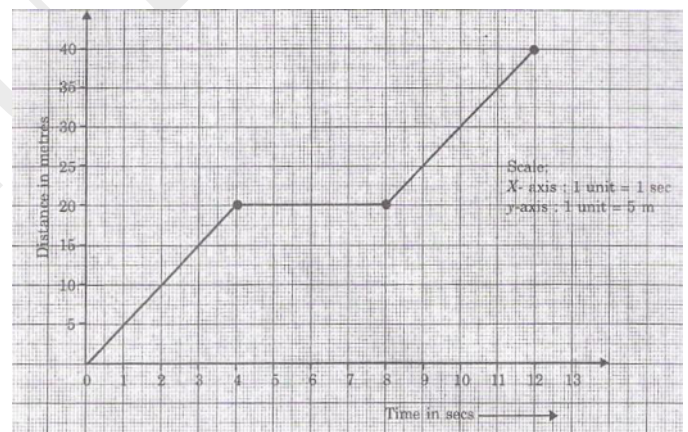a) What is the perimeter of the square when the side is 4 cm?

b) What is the side of the square if the perimeter is 12 cm?

25. The graph shows the path of a cyclist.

Answer the questions given below.

a) What is the average speed during the first part of the journey?

b) For how long did he rest?

c) What was the average speed during the second part of the journey?

26. Plot the points on a graph paper. Verify if they lie on a line.

(i) A(0,2) B(-2,2) C(2,2)   (ii) A(3,3) B(4,3) C(3,1)