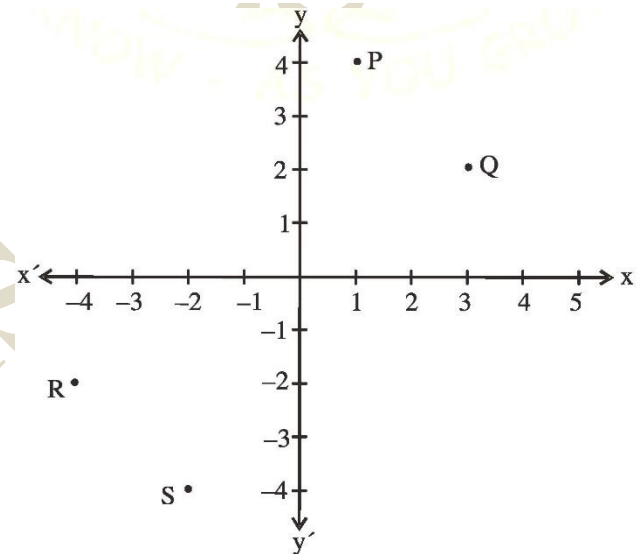


PRACTICE QUESTIONS
CLASS VIII: CHAPTER - 15
INTRODUCTION TO GRAPH

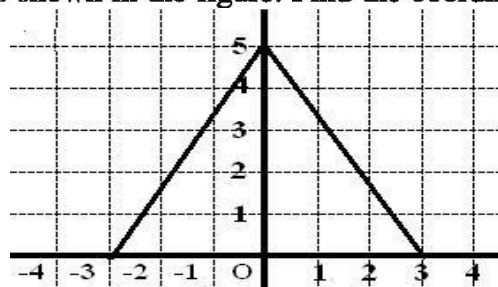
- Which of the following points lie in I and II quadrants?
 (1, 1), (2, -3), (-2, 3), (-1, 1), (-3, -2), (4, 3)
- Which of the following points lie on (a) x -axis (b) y -axis?
 (5, 1), (8, 0), (0, 4), (-3, 0), (0, -3), (0, 5), (0, 0)
- If the x -coordinate of a point is negative, it can lie in which quadrants?
- From the figure, write the coordinates of the points P, Q, R and S. Does the line joining P and Q pass through origin?

5. Write the coordinates of the following points:

- lying on both axes
- lying on x -axis and with x -coordinate 4
- lying on y -axis with y -coordinate -3



- The coordinates of the three vertices of a rectangle ABCD are A(3, 2), B (-4, 2), C(-4,5). Plot these points and write the coordinates of D.
- ABC is an equilateral triangle as shown in the figure. Find the coordinates of its vertices



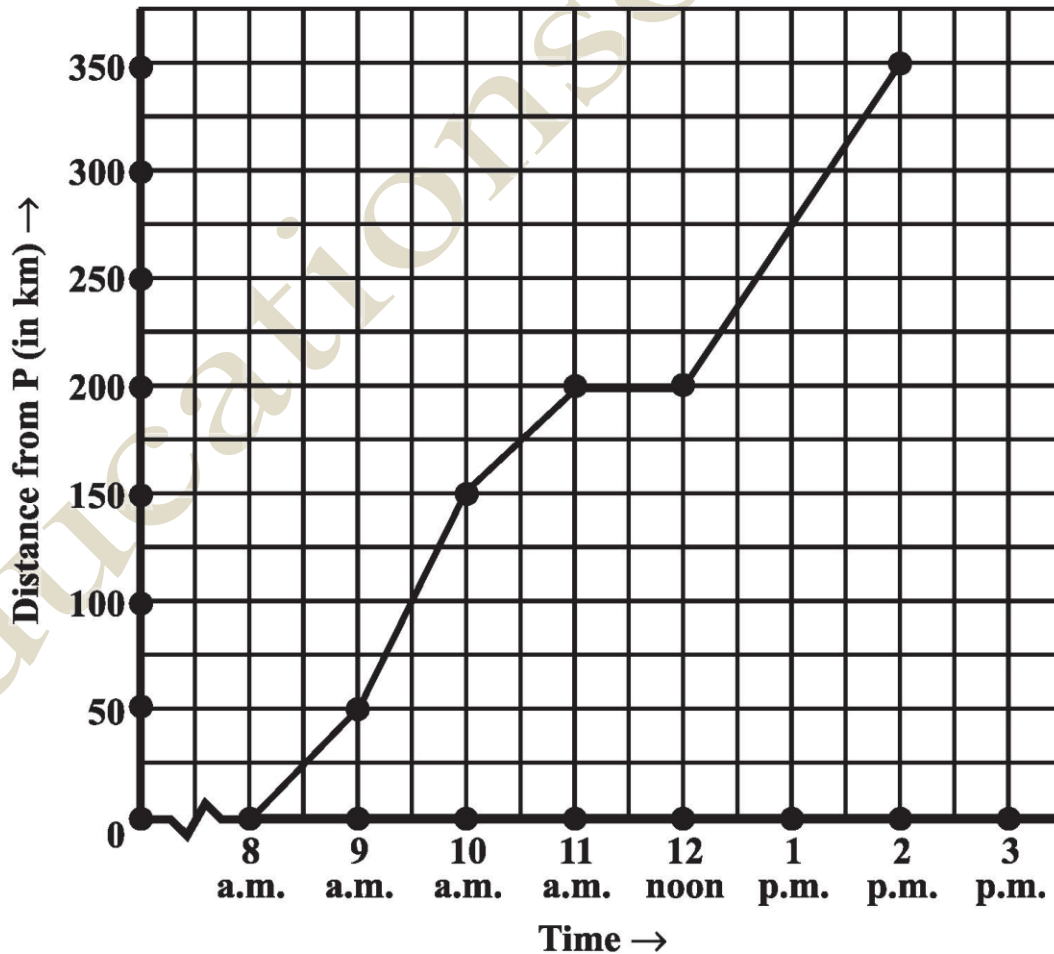
8. Plot the following points on a graph paper:

x	1	2	3	4	5
y	5	8	11	14	17

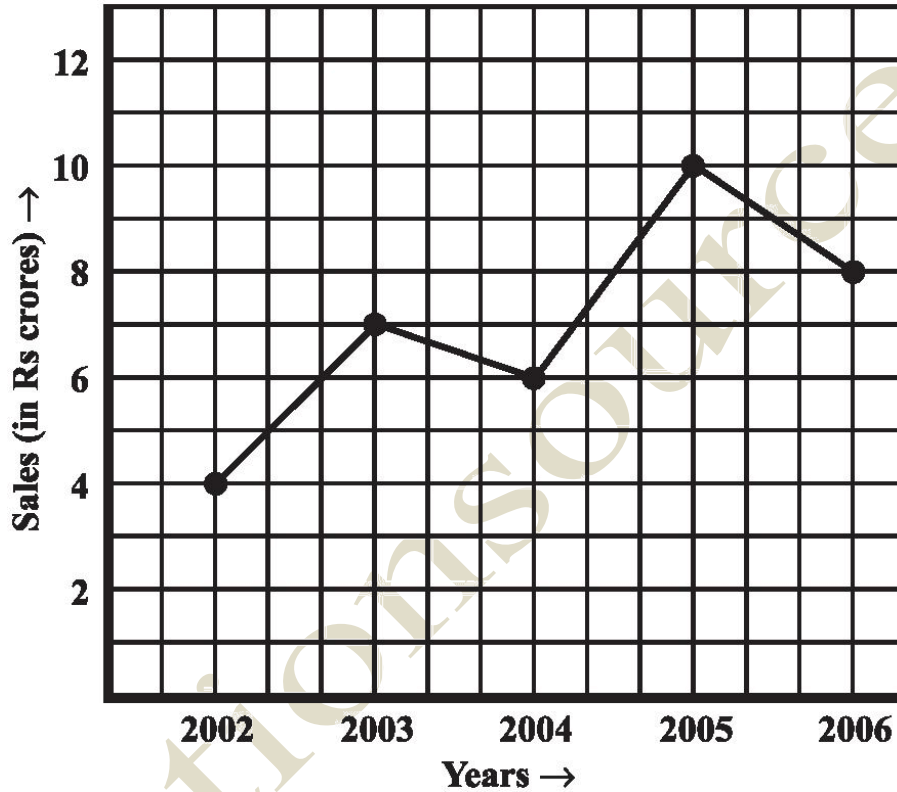
Join these points. What do you observe ?

9. What is the name of horizontal and the vertical lines drawn to determine the position of any point in the Cartesian plane?
10. What is the name of each part of the plane formed by these two lines?
11. Write the name of the point where these two lines intersect.
12. Locate the points (5, 0), (0, 5), (2, 5), (5, 2), (-3, 5), (-3, -5), (5, -3) and (6, 1) in the Cartesian plane.
13. Plot the following ordered pairs of number (x, y) as points in the Cartesian plane. Use the scale 1cm = 1 unit on the axes.
- | | | | | | |
|---|----|------|----|---|----|
| x | -3 | 0 | -1 | 4 | 2 |
| y | 7 | -3.5 | -3 | 4 | -3 |
14. In which quadrant or on which axis do each of the points (-2, 4), (3, -1), (-1, 0), (1, 2) and (-3, -5) lie? Verify your answer by locating them on the Cartesian plane.
15. Plot the points (x, y) given in the following table on the plane, choosing suitable units of distance on the axes.
- | | | | | | |
|---|----|----|----|---|----|
| x | -1 | 2 | -4 | 2 | -3 |
| y | 0 | -5 | 2 | 1 | 2 |
16. Plot the following points and verify if they lie on a line. If they lie on a line, name it.
- (i) (0, 2), (0, 5), (0, 6), (0, 3.5)
 - (ii) A (1, 1), B (1, 2), C (1, 3), D (1, 4)
 - (iii) K (1, 3), L (2, 3), M (3, 3), N (4, 3)
 - (iv) W (2, 6), X (3, 5), Y (5, 3), Z (6, 2)
17. Draw the line passing through (2, 3) and (3, 2). Find the coordinates of the points at which this line meets the x-axis and y-axis.
18. Plot the following points on a graph sheet. Verify if they lie on a line
- (a) A (4, 0), B(4, 2), C(4, 6), D(4, 2.5)
 - (b) P(1, 1), Q(2, 2), R(3, 3), S(4, 4)
 - (c) K (2, 3), L(5, 3), M(5, 5), N(2, 5)

19. In which quadrant or on which axis do each of the points $(5, 0)$, $(0, 5)$, $(2, 5)$, $(5, 2)$, $(-3, 5)$, $(-3, -5)$, $(5, -3)$ and $(6, 1)$ in the Cartesian plane.
20. Plot the points A $(4, 4)$ and $(-4, 4)$ on a graph sheet. Join the lines OA, OB and BA. What figure do you obtain?
21. The given graph describes the distances of a car from a city P at different times when it is travelling from City P to City Q, which are 350 km apart. Study the graph and answer the following:
- What information is given on the two axes?
 - From where and when did the car begin its journey?
 - How far did the car go in the first hour?
 - How far did the car go during (i) the 2nd hour? (ii) the 3rd hour?
 - Was the speed same during the first three hours? How do you know it?
 - Did the car stop for some duration at any place? Justify your answer.
 - When did the car reach City Q?



22. The following line graph shows the yearly sales figures for a manufacturing company.
- What were the sales in (i) 2002 (ii) 2006?
 - What were the sales in (i) 2003 (ii) 2005?
 - Compute the difference between the sales in 2002 and 2006.
 - In which year was there the greatest difference between the sales as compared to its previous year?



23. Use the tables below to draw linear graphs.
- The number of days a hill side city received snow in different years.

Year	2003	2004	2005	2006
Days	8	10	5	12
 - Population (in thousands) of men and women in a village in different years.

Year	2003	2004	2005	2006	2007
Number of Men	12	12.5	13	13.2	13.5
Number of Women	11.3	11.9	13	13.6	12.8

24. Plot the point (4, 3) on a graph sheet. Is it the same as the point (3,4)?
25. The following table gives the quantity of petrol and its cost. Plot a graph to show the data.
- | | | | | |
|--------------------------------|-----------|-----------|-----------|-----------|
| No. of litres of petrol | 10 | 15 | 20 | 25 |
| Cost of petrol in Rs. | 500 | 750 | 1000 | 1250 |
26. A bank gives 10% Simple Interest (S.I.) on deposits by senior citizens. Draw a graph to illustrate the relation between the sum deposited and simple interest earned. Find from your graph
- (a) the annual interest obtainable for an investment of Rs 250.
(b) the investment one has to make to get an annual simple interest of Rs 70.
27. Ajit can ride a scooter constantly at a speed of 30 kms/hour. Draw a time-distance graph for this situation. Use it to find
- (i) the time taken by Ajit to ride 75 km.
(ii) the distance covered by Ajit in $3\frac{1}{2}$ hours.
28. Draw the graphs for the following table of values, with suitable scales on the axes.
- | | | | | |
|--------------------------|-------------|-------------|-------------|-------------|
| Time (in hours) | 6 am | 7 am | 8 am | 9 am |
| Distances (in km) | 40 | 80 | 120 | 160 |
- Distance travelled by a car
- (i) How much distance did the car cover during the period 7.30 a.m. to 8 a.m.?
(ii) What was the time when the car had covered a distance of 100 km since its start?