

BHARATIYA VIDYA BHAVAN'S V. M. PUBLIC SCHOOL, VADODARA

CLASS – IX SUBJECT – MATHEMATICS CHAPTER – COORDINATE GEOMETRY

1. In which quadrant or on which axis does each of the points $(-2, 4)$, $(3, -1)$, $(-1, 0)$, $(1, 2)$ and $(-3, -5)$ lie? Verify your answers by locating the points on the Cartesian plane.
2. Plot the points $A(4, 4)$ and $B(-4, 4)$. If O be the origin, then what type of figure is made by joining OA , OB and BA ?
3. In an equilateral triangle ABC , the coordinates of vertices B and C are $(3, 0)$ and $(-3, 0)$ respectively. Find the coordinates of its vertex A . Also, find its area.
4. Draw a rectangle $ABCD$ in which vertices A , B , C and D are $(1, 4)$, $(-5, 4)$, $(-5, -3)$ and $(1, -3)$ respectively.
5. Draw a parallelogram $ABCD$ in which vertices A , B , C and D are $(-3, 2)$, $(-5, -4)$, $(-2, -4)$ and $(0, 2)$ respectively.
6. Name the special type of quadrilateral formed by $P(-2, 2)$, $Q(-8, 2)$, $R(-2, -4)$ and $S(-8, -4)$.
7. Draw the graph of the linear equation $3x - 4y + 6 = 0$
8. Find the value of k , if $(5, 7)$ is a solution of the equation $13x - 3y = 4k$, then find one more solution of this equation.
9. Write the equation of a line passing through the point $(2, 3)$.
10. Solve the equation $2x + 1 = x + 3$ and represent the solutions:
(i) on number line (ii) in the Cartesian plane
11. Plot the points $(5, 4)$, $(0, 0)$ and $(5, 0)$, join the points and find the area of the figure formed.
12. There are two towns at $P(-5, 7)$ and $Q(3, 7)$, the administration wants to make a college in such a way that distance from both the towns remains the same.
(i) Plot the points $P(-5, 7)$ and $Q(3, 7)$.
(ii) What are the coordinates of the college?
(iii) Which moral values have been shown by administration?
13. Consider the points $O(0, 0)$, $A(0, 2)$, $B(2, 5)$ and $C(5, 0)$. Find the perimeter of the figure formed by joining the lines OA , AB , BC and CA .
14. Plot the points $P(1, 0)$, $Q(4, 0)$ and $S(1, 3)$. Find the coordinate of the point R such that $PQRS$ is a square.
15. Plot the coordinates of the point:
(i) whose ordinate is -5 and which lies on y – axis.
(ii) which lies on x and y axes both.
(iii) whose abscissa is 3 and which lies on x – axis in Cartesian Plane.