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Class : X   Question Bank
Subject : Mathematics   Chapter : Co – ordinate Geometry

1. Find a point on the y-axis equidistant from (-5, 2) and (9, -2).
2. Find the distance between the points (-8/5, 2) and (2/5, 2).
3. In triangle ABC, D and E are mid-points of the sides BC and AC respectively. Find the length of DE. Prove that DE = 1/2AB.
4. Points P (5, -3) is one of the two points of trisection of the line segment joining points A(7, -2) and B(1, -5) near to A. find the coordinates of the other point of trisection.
5. Find the area of quadrilateral ABCD whose vertices are A (1, 0), B (5, 3), C (2, 7), D (-2, 4).
6. Points P, Q, R and S divide a line segment joining A (2, 6) and B (7, -4) in five equal parts. Find the coordinates of P and R.
7. Find the relation between x and y if points (2, 1), (x, y) and (7, 5) are collinear.
8. If A (-2, 4), B (0, 0) and C (4, 2) are the vertices of triangle ABC, then find the length of the median through the vertex A.
9. If points A (4, 3) and B (x, 5) are on the circle with centre O (2, 3), find the value of x.
10. If vertices of a triangles are (1, k), (4, -3) and (-9, 7) and its area is 15 sq. units then find then the value of k.
11. Find the area of triangle ABC whose vertices are A (-5, 7), B (-4, -5) and C (4, 5).
12. If point A (0,2) is equidistant from the point B (3, p)and C (p, 5), find p.
13. Find the ratio in which the point P (3/4, 5/12) divides the line segment joining the points A (1/2, 3/2) and B (2, -5).
14. If A(-4, 8), B(-3, -4), C(0, -5) and D(5, 6) are the vertices of a quadrilateral ABCD, find its area.
15. Find the coordinates of the point P dividing the line segment joining the points A (1, 3) and   B (4, 6) in the ratio 2:1.
16. If the coordinates of one end of a diameter of a circle are (2, 3) and the coordinates of its centre are (-2, 5), then what are the coordinates of the other end of the diameter?
 18.. Prove that the points (7, 10), (-2,5) and (3,-4) are the vertices of an isosceles right triangle.
19. Find the ratio in which the y-axis divides the line segment joining the points (-4,-6) and (10, 12). Also find the coordinates of the point of division.
20. If the points A(x, 2), B (-3,-4) and C (7, -5) are collinear, then what is the value of x?
21. The mid-point of segment AB is the point P (0, 4). If the coordinates of B are (-2, 3) then find the coordinates of A.
22. If two vertices of an equilateral triangle are (3, 0) and (6, 0), find the third vertex.
23. For what value of p, the points (-5, 1), (1, p) and (4, -2) are collinear?
24. Find the ratio in which the line 3x + 4y . 9 = 0 divides the line segment joining the points (1, 3) and (2, 7).
25. If point P (x, y) is equidistant from the points A (3, 6) and B (-3, 4), prove that 3x + y . 5 = 0.

26. The coordinates of A and B are (1, 2) and (2, 3). If P lies on AB then find the coordinates of P such that: AP/PB = 4/3.
27. Show that the triangle PQR formed by the points P ($\sqrt{2}$, $\sqrt{2}$), Q (-$\sqrt{2}$, -$\sqrt{2}$) and R (-$\sqrt{6}$, -$\sqrt{6}$) is an equilateral triangle.
28. The line joining the points (2, -1) and (5, -6) is bisected at p. If p lies on line 2x + 4y + k = 0, find the value of k.
29. If p (x, y) is any point on the line joining the points A (a, 0) and B (0, b), then show that x/a + y/b = 1.
30. Find the area of quadrilateral ABCD whose vertices are A (-4, -2), B (-3, -5), C (3, -2), D (2, 3).
31. Find the ratio in which point (x, 2) divides the line segment joining points (-3, -4) and (3, 5). Also find the value of x.
32. Find the area of the triangle ABC with A (1, - 4) and mid-points of sides through A being (2, - 1) and (0, -1).

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