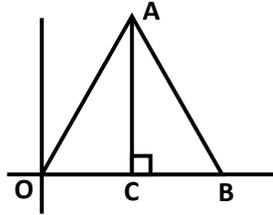




Coordinate Geometry

1. AOBC is a rectangle whose three vertices are vertices A(0, 3), O(0, 0) and B(5, 0). The length of its diagonal is
(a) 5 (b) 3 (c) $\sqrt{34}$ (d) 4
2. The distance between the points A(0, 6) and B(0, -2) is
(a) 6 (b) 8 (c) 4 (d) 2
3. The distance of the point P(-6, 8) from the origin is
(a) 8 (b) $2\sqrt{7}$ (c) 10 (d) 6
4. The distance between the points (0, 5) and (-5, 0) is
(a) 5 (b) $5\sqrt{2}$ (c) $2\sqrt{5}$ (d) 10
5. The distance of the point P(2, 3) from the x-axis is
(a) 2 (b) 3 (c) 1 (d) 5
6. The distance between the points (2, k) and (-4, 1) is $2\sqrt{10}$ units, then the value of k is
(a) -1 (b) 1 (c) -3 (d) None of these
7. If the end points of the diameter of a circle are (4, 6) and (8, 4), the radius of the circle is
(a) $2\sqrt{5}$ units (b) $\sqrt{5}$ units (c) $\sqrt{10}$ units (d) $2\sqrt{20}$ units
8. If the 3 consecutive vertices of a square are (-1, 4), (-3, 0) and (1, -2). Which of the following can be its fourth vertex?
(a) (3, 2) (b) (2, 3) (c) (-3, 2) (d) (1, 2)
9. A triangle formed by the points A(2, 5), B(3, 8) and C(x, y). if the centroid of the triangle is (3,5), what is the coordinate of point C?
(a) (2, 4) (b) (-4, -2) (c) (4, 2) (d) None of these
10. A point on x-axis which is equidistance from the points (3, 4) and (2, 5) is
(a) (2, 0) (b) (-2, 0) (c) (4, 0) (d) None of these
11. The coordinates of the mid-point of the sides of a triangle are (3, 6), (4, 5) and (2, 1), then area of the triangle is
(a) 3 sq units (b) 4 sq units (c) 8 sq units (d) 12 sq units
12. Which of the following is the ratio in which the line segment joining the points (3, 7) and (2, 4) is divided by the x-axis?
(a) 4 : 7 externally (b) 4 : 7 internally (c) 7 : 4 externally (d) None of these
13. The triangle formed by joining the vertices (3, 2) (5, -3) and (-5, 4) will be a
(a) acute triangle (b) obtuse triangle (c) right triangle (d) isosceles triangle
14. If 3 consecutive vertices of a parallelogram are (5, 6), (2, 8) and (0, 6), which of the following can be the fourth vertex?
(a) (2,5) (b) (4, 3) (c) (1, 2) (d) (3, 4)
15. Which of the following points will be collinear with (0, 1) and (-2, 5)?
(a) (2, -3) (b) (3, 0) (c) (4, 5) (d)
16. If the coordinates of the vertices of a ΔPQR are P(3, 1), Q(4, 5) and R(13, 9), which of the following will be the coordinates of the points S, if RS is a median from R to PQ?

- (a) (17, 7) (b) (17, 14) (c) (17/2, 7) (d) None of these
17. For what value of p , the points (1, 1), (2, 3) and (p , 2) will form an isosceles right angled triangle?
 (a) 0 (b) -4 (c) 4 (d) 2
18. The mid-point of the diagonal BD of a rhombus is (3, 4). If the coordinate of point B is (1, 5), the coordinate of point D will be
 (a) (5, 3) (b) (3, 5) (c) (5, 1) (d) (3, 1)
19. If the area of the equilateral $\triangle OAB$ shown in figure is $9\sqrt{3}$ sq units, then what are the coordinates of point A?



- (a) $(3, \sqrt{3})$ (b) $(3, \sqrt{3}/2)$ (c) $(3, 3\sqrt{3})$ (d) $(2, \sqrt{3})$
20. The quadrilateral formed by joining the points (3, 4), (5, 6), (2, 8) and (0, 6) is a
 (a) parallelogram (b) rhombus (c) square (d) rectangle
21. The point of intersection of the lines $x = 2$ and $y = 5$ is
 (a) (2, 5) (b) (5, 2) (c) (2.5, 2.5) (d) None of these
22. A point which is 3 units away from the x-axis and 6 unit away from the y-axis can be
 (a) (3, 6) (b) (-3, 6) (c) (-3, 3) (d) Both (a) and (b)
23. If $a > 0$ and $b < 0$, the point $(a, -b)$ lies in which of the following quadrants?
 (a) I (b) II (c) III (d) IV
24. If $x < 0, y > 0$, which of the following point is in the IIIrd quadrant?
 (a) $(-x, y)$ (b) (x, y) (c) $(-x, -y)$ (d) $(x, -y)$
25. A line drawn perpendicular to x-axis is always
 (a) perpendicular to y-axis (b) parallel to y-axis
 (c) intersects y-axis but not perpendicular (d) Cannot form a relation
26. The distance of the point (4, 5) to the point (6, 9) is
 (a) $\sqrt{5}$ (b) 20 (c) $2\sqrt{5}$ (d) None of these
27. If the distance of the points (2, -3) and (-8, -11) are equal from the point $(k, -7)$, what is the value of k ?
 (a) 7 (b) -7 (c) -3 (d) 3
28. For what value of m the points (-3, -5), (-5, -6) and $(m, -4)$ are collinear?
 (a) 1 (b) 2 (c) -1 (d) None of these
29. If the end points of the diameter of a circle are (3, 4) and (9, 8), the coordinates of its centre will be
 (a) (6, 12) (b) (6, 6) (c) (3, 6) (d) (12, 6)
30. For what value of 'n' the area of the triangle formed with points (1, n), (3, 5) and (-1, 2) will be 5 sq units?
 (a) 1 (b) -1 (c) 2 (d) None of these
31. The points (1, 7), (3, 3) and (7, -5) form a
 (a) straight line (b) right triangle (c) isosceles triangle (d) scalene triangle
32. The area of the triangle formed by the points $(k - 1, k + 1)$, $(k + 3, k - 3)$ and $(k + 1, k + 2)$ is
 (a) 2 (b) 3 (c) $3k$ (d) None of these
33. The coordinates of the point which divide the line segment joining A(2, 1) and B(3, 5) internally in 2 : 3 ratio is
 (a) (6, 13) (b) $(\frac{12}{5}, \frac{13}{5})$ (c) (12, 13) (d) (6, 65)

34. Which of the following is the coordinate of point C that divides the line PQ with P(-1, 2) and Q(-2, -1) externally in 3 : 2 ratio?
 (a) (4, 7) (b) (-4, 7) (c) (-4, -7) (d) (4, -7)
35. A point Y(7, 17) divides the line segment joining the points X(3, 5) and Z(1, -1) externally in which of the following ratio?
 (a) 1 : 3 (b) 2 : 1 (c) 2 : 3 (d) None of these
36. What is the area of the triangle formed by joining the points (0, 0), (2, 4) and (2, 0)?
 (a) 2 sq units (b) 4 sq units (c) 6 sq units (d) 8 sq units
37. Which of the following is the distance between point (x, y) and the origin?
 (a) $\sqrt{(x - y)^2 + (x + y)^2}$ (b) $\sqrt{(x - 1)^2 + (y - 1)^2}$
 (c) $\sqrt{x^2 + y^2}$ (d) None of these
38. The coordinate of the centroid of a ΔABC formed by points $A(x_1, y_1)$, $B(x_2, y_2)$ and $C(x_3, y_3)$, is
 (a) $\left(\frac{x_1+x_2+x_3}{2}, \frac{y_1+y_2+y_3}{2}\right)$ (b) $\left(\frac{x_1+x_2+x_3}{3}, \frac{y_1+y_2+y_3}{3}\right)$
 (c) $\left(\frac{x_1x_2x_3}{3}, \frac{y_1y_2y_3}{3}\right)$ (d) None of these
39. If the circle having end points of the diameter as (3, -4) and (a, b) has its centre at (5, -1), the value of (a, b) is
 (a) (2, 7) (b) (7, 2) (c) (2, 2) (d) None of these
40. The point nearest to the origin among the points given, is
 (a) (3, 4) (b) (-1, -1) (c) (0, 3) (d) (4, 0)