

- The points A(0, -2), B(3, 1), C(0, 4) and D(-3, 1) are the vertices of a
(a) parallelogram (b) rectangle (c) square (d) rhombus
- If A(3, 8), B(4, -2) and C(5, -1) are the vertices of $\triangle ABC$. Then, its area is
(a) $28\frac{1}{2}$ sq. units (b) $37\frac{1}{2}$ sq. units (c) 57 sq. units (d) 75 sq. units
- The points A(0, 6), B(-5, 3) and C(3, 1) are the vertices of a triangle which is
(a) isosceles (b) equilateral (c) scalene (d) right angled
- Two vertices of $\triangle ABC$ are A(-1, 4) and B(5, 2) and its centroid is G(0, -3). The coordinate of C is
(a) (4, 3) (b) (4, 15) (c) (-4, -15) (d) (-15, -4)
- The coordinates of the centroid of $\triangle ABC$ with vertices A(-1, 0), B(5, -2) and C(8, 2) is
(a) (12, 0) (b) (6, 0) (c) (0, 6) (d) (4, 0)
- If the points A(2, 3), B(5, k) and C(6, 7) are collinear, then the value of k is
(a) 4 (b) 6 (c) $\frac{-3}{2}$ (d) $\frac{11}{4}$
- If P(-1, 1) is the middle point of the line segment joining A(-3, b) and B(1, b + 4) then the value of b is
(a) 1 (b) -1 (c) 2 (d) 0
- y-axis divides the join of P(-4, 2) and Q(8, 3) in the ratio
(a) 3 : 1 (b) 1 : 3 (c) 2 : 1 (d) 1 : 2
- x-axis divides the join of A(2, -3) and B(5, 6) in the ratio
(a) 3 : 5 (b) 2 : 3 (c) 2 : 1 (d) 1 : 2
- The point P(1, 2) divides the join of A(-2, 1) and B(7, 4) are in the ratio of
(a) 3 : 2 (b) 2 : 3 (c) 2 : 1 (d) 1 : 2
- A point P divides the join of A(5, -2) and B(9, 6) are in the ratio 3 : 1. The coordinates of P are
(a) (4, 7) (b) (8, 4) (c) $(\frac{11}{2}, 5)$ (d) (12, 8)
- What point on x - axis is equidistant from the points A(7, 6) and B(-3, 4)?
(a) (0, 4) (b) (-4, 0) (c) (3, 0) (d) (0, 3)
- The distance of the point P(4, -3) from the origin is
(a) 1 unit (b) 7 units (c) 5 units (d) 3 units
- The distance between the points A(2, -3) and B(2, 2) is
(a) 2 units (b) 4 units (c) 5 units (d) 3 units
- Find the area of the triangle whose vertices are A(1, 2), B(-2, 3) and C(-3, -4)
(a) 11 sq. units (b) 22 sq. units (c) 7 sq. units (d) 6.5 sq. units

- Find the area of the triangle whose vertices are A(2, 4), B(-3, 7) and C(-4, 5)
(a) 11 sq. units (b) 22 sq. units (c) 7 sq. units (d) 6.5 sq. units
- Find the area of the triangle whose vertices are A(10, -6), B(2, 5) and C(-1, 3)
(a) 12.5 sq. units (b) 24.5 sq. units (c) 7 sq. units (d) 6.5 sq. units
- Find the area of the triangle whose vertices are A(4, 4), B(3, -16) and C(3, -2)
(a) 12.5 sq. units (b) 24.5 sq. units (c) 7 sq. units (d) 6.5 sq. units
- For what value of x are the points A(-3, 12), B(7, 6) and C(x, 9) collinear?
(a) 1 (b) -1 (c) 2 (d) -2
- For what value of y are the points A(1, 4), B(3, y) and C(-3, 16) collinear?
(a) 1 (b) -1 (c) 2 (d) -2
- Find the value of p for which the points A(-1, 3), B(2, p) and C(5, -1) collinear?
(a) 1 (b) -1 (c) 2 (d) -2
- What is the midpoint of a line with endpoints (-3, 4) and (10, -5)?
(a) (-13, -9) (b) (-6.5, -4.5) (c) (3.5, -0.5) (d) none of these
- A straight line is drawn joining the points (3, 4) and (5, 6). If the line is extended, the ordinate of the point on the line, whose abscissa is -1 is
(a) 1 (b) -1 (c) 2 (d) 0
- If the distance between the points (8, p) and (4, 3) is 5 then value of p is
(a) 6 (b) 0 (c) both (a) and (b) (d) none of these
- The fourth vertex of the rectangle whose three vertices taken in order are (4, 1), (7, 4), (13, -2) is
(a) (10, -5) (b) (10, 5) (c) (8, 3) (d) (8, -3)
- If four vertices of a parallelogram taken in order are (-3, -1), (a, b), (3, 3) and (4, 3). Then a : b =
(a) 1 : 4 (b) 4 : 1 (c) 1 : 2 (d) 2 : 1
- Area of the triangle formed by (1, -4), (3, -2) and (-3, 16) is
(a) 40 sq. units (b) 48 sq. units (c) 24 sq. units (d) none of these
- The points (2, 5), (4, -1), (6, -7) are vertices of an _____ triangle
(a) isosceles (b) equilateral (c) scalene (d) right angled
- The area of triangle formed by the points (p, 2 - 2p), (1-p, 2p) and (-4-p, 6 - 2p) is 70 sq. units. How many integral value of p are possible?
(a) 2 (b) 3 (c) 4 (d) none of these
- If the origin is the mid-point of the line segment joined by the points (2, 3) and (x, y), then the value of (x, y) is
(a) (2, -3) (b) (2, 3) (c) (-2, 3) (d) (-2, -3)

- The distance of the point P(2, 3) from the x-axis is:
(a) 2 (b) 3 (c) 1 (d) 5
- The distance between the points A(0, 6) and B(0, -2) is:
(a) 2 (b) 6 (c) 4 (d) 8
- The distance of the point P(-6, 8) from the origin is:
(a) 8 (b) 27 (c) 10 (d) 6
- The distance between the points (0, 5) and (-5, 0) is:
(a) 5 (b) 52 (c) 25 (d) 10
- AOBC is a rectangle whose three vertices are A(0, 3), O(0, 0) and B(5, 0). The length of its diagonal is:
(a) 5 (b) 3 (c) 34 (d) 4
- The perimeter of a triangle with vertices (0, 4), (0, 0) and (3, 0) is:
(a) 5 (b) 12 (c) 11 (d) 7 + 5
- The area of a triangle with vertices A(3, 0), B(7, 0) and C(8, 4) is:
(a) 14 (b) 28 (c) 8 (d) 6
- The points (-4, 0), (4, 0), (0, 3) are the vertices of a :
(a) Right triangle (b) Isosceles triangle (c) Equilateral triangle (d) Scalene triangle
- Point on x – axis has coordinates:
(a) (a, 0) (b) (0, a) (c) (-a, a) (d) (a, -a)
- Point on y – axis has coordinates:
(a) (-a, b) (b) (a, 0) (c) (0, b) (d) (-a, -b)
- Line formed by joining (- 1,1) and (5, 7) is divided by a line $x + y = 4$ in the ratio of
(a) 1 : 4 (b) 1 : 3 (c) 1 : 2 (d) 3 : 4
- If the area of the triangle with vertices (x, 0), (1,1) and (0, 2) is 4 square units, then a value of x is
(a) -2 (b) -4 (c) -6 (d) 8

- Point A(-5, 6) is at a distance of:

(a) 61 units from the origin (b) 11 units from the origin
(c) $\sqrt{61}$ units from the origin (d) $\sqrt{11}$ units from the origin
- If the points (1, x), (5, 2) and (9, 5) are collinear then the value of x is

(a) $\frac{5}{2}$ (b) $\frac{-5}{2}$ (c) -1 (d) 1
- The end points of diameter of circle are (2, 4) and (-3, -1). The radius of the circle is

(a) $\frac{5\sqrt{2}}{2}$ (b) $5\sqrt{2}$ (c) $3\sqrt{2}$ (d) $\frac{\pm 5\sqrt{2}}{2}$
- The ratio in which x – axis divides the line segment joining the points (5, 4) and (2, -3) is:

(a) 5 : 2 (b) 3 : 4 (c) 2 : 5 (d) 4 : 3
- The point which divides the line segment joining the points (7, -6) and (3, 4) in ratio 1:2 internally lies in the

(a) I quadrant (b) II quadrant (c) III quadrant (d) IV quadrant
- The point which lies on the perpendicular bisector of the line segment joining the points A(-2, -5) and B(2, 5) is:

(a) (0, 0) (b) (0, 2) (c) (2, 0) (d) (-2, 0)
- The fourth vertex D of a parallelogram ABCD whose three vertices are A(-2, 3), B(6, 7) and C(8, 3) is:

(a) (0, 1) (b) (0, -1) (c) (-1, 0) (d) (1, 0)
- If the point P(2, 1) lies on the line segment joining points A(4, 2) and B(8, 4), then

(a) $AP = \frac{1}{3} AB$ (b) $AP = PB$ (c) $PB = \frac{1}{3} AB$ (d) $AP = \frac{1}{2} AB$
- Three vertices of a parallelogram taken in order are (-1, -6), (2, -5) and (7, 2). The fourth vertex is

(a) (1, 4) (b) (1, 1) (c) (4, 4) (d) (4, 1)
- If A and B are the points (-3, 4) and (2, 1) respectively, then the coordinates of the points on AB produced such that $AC = 2BC$ are

(a) (2, 4) (b) (3, 7) (c) (7, -2) (d) none of these
- Distance of the point (4, a) from x-axis is half its distance from y-axis then a =

(a) 2 (b) 8 (c) 4 (d) 6
- A triangle is formed by the points O(0, 0), A(5, 0) and B(0, 5). The number of points having integral coordinates (both x and y) and strictly inside the triangle is

(a) 10 (b) 17 (c) 16 (d) 6

13. If P(1, 2), Q(4,6), R(5,7) and S(a, b) are the vertices of a parallelogram PQRS then
(a) $a = 2, b = 4$ (b) $a = 3, b = 4$ (c) $a = 2, b = 3$ (d) $a = 3, b = 5$
14. The number of points on x-axis which are at a distance of 2 units from (2, 4) is
(a) 2 (b) 1 (c) 3 (d) 0
15. The distance of the point (h, k) from x-axis is
(a) h (b) k (c) $|h|$ (d) $|k|$
16. The vertices of a triangle are (0, 0), (3, 0) and (0, 4). Its orthocentre is at
(a) (0, 3) (b) (4, 0) (c) (0, 0) (d) (3, 4)
17. The area of the triangle with vertices at the points (a, b + c), (b, c + a) and (c, a + b) is
(a) $a + b + c$ (b) $a + b - c$ (c) $a - b + c$ (d) 0
18. If the segment joining the points (a, b) and (c, d) subtends a right angle at the origin, then
(a) $ac - bd = 0$ (b) $ac + bd = 0$ (c) $ab - cd = 0$ (d) $ab + cd = 0$
19. The distance of A(5, -12) from the origin is
(a) 12 (b) 11 (c) 13 (d) 10
20. Find the ordinate of a point whose abscissa is 10 and which is at a distance of 10 units from the point P(2, -3).
(a) 3 (b) -9 (c) both (a) or (b) (d) none of these