CO - ORDINATE GEOMETRY

1 MARK QUESTION

1 The distance between a point $(4,-3)$ and the origin is

A) 1 unit B) 5unit C) 7unit D) -1unit

2 The distance between a point $A(x, y)$ and the origin is 5 units, then the co-ordinates of the point 'P' is

A) $(-2, 3)$ B) $(1, 2)$ C) $(3, 3)$ D) $(3, 4)$

3 The perpendicular distance of a point A(3,5) from the x-axis is

A) 3 unit B) 5 unit C) 6 unit D) 8unit

4 The co-ordinates of the midpoint of the line segment joining the points (-6,5) and (-2,3) is $(\frac{a}{3}, 4)$, then the value of 'a' is

A) -4 B) -12 C) 12 D) -6

5 The co-ordinates of the midpoint of the line segment joining the points (2, 3) and (4, 7) is $(3, b)$, then the value of 'b' is

A) 2 B) 4 C) 5 D) 0

6 The co-ordinates of the midpoint of the line segment joining the points A (-3, b) and B(1, b+4) is $(-1, 1)$. then the value of 'b' is

A)1 B)-1 C)5 D)10

7 The distance between the points (0, 5) and (-5,0) is

A) $5\sqrt{2}$unit B)5 unit C)$2\sqrt{5}$unit D) $\sqrt{10}$unit

8 The co-ordinate of the midpoint of the line segment joining the points A(2,4) and B(4, 6) is

A) $(3, 5)$ B)$(2, 5)$ C)$(3, 6)$ D) $(3, 7)$

9. What is the distance of a point (6, 8) from the y-axis?

10 Find the distance between the co-ordinates of the point A(2,6) and b(5, 10)

11 Find the distance between a point (5, -5) from the origin.

12 Find the co-ordinates of the midpoint of the line segment joining the points $(8, 5)$ and $(6,3)$

2 MARK QUESTION

14. Find the distance between the points (0, 0) and (36, 15)

15. Find the distance between the points (a, b) and(-a, -b)

16. The distance between the points P$(2, -3)$ and Q $(10,y)$ is 10 units, then find the value of y

17. Find the points on the x-axis which is equidistance from (2, -5) and (-2, 9)

18. If P (x, y) is equidistance from A(6, 2) and B(-2, 6) then prove that y=2x

20. Find the distance between the points (-1, 1) and (-4, 4)

21 If the points A(6, 1), B(8, 2), C(9, 4) and D(p, 3) are the vertices of a parallelogram, taken in order, find the value of p.

22 Find the coordinates of the point which divides the join of (–1, 7) and (4, –3) in the ratio 2 : 3.

3 MARK QUESTION

23. Check whether (5, – 2), (6, 4) and (7, – 2) are the vertices of an isosceles triangle

24. Prove that $(3, 0)$ $(6,4)$ and $(-1, 3)$ are the vertices of the right angled triangle

25 Show that (9, 0),(9, 6) , (-9, 6) and (-9, 0) are the vertices of the rectangle.

26 Prove that the points (1, -1), (5, 2) and (9, 5) are collinear(using distance formula)

27 Find the coordinates of the points of trisection of the line segment joining (4, – 1) and (–2, –3).

28 Find the coordinates of the point which divides the join of (-5, 11) and (4, -7) in the ratio 7 : 2.

29 Find the ratio in which the line segment joining the points (8, 2) and (-6, 9) is divided by (2, 5).

30. In what ratio does the point (–6, a) divide the line segment joining the points A(–3,-1) and (-8, 9)? and also find the value of 'a'.

31 Find the coordinates of the points which divide the line segment joining A(–2, 2) and B(2, 8) into four equal parts.

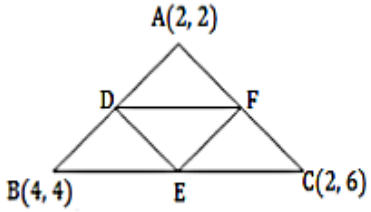
32 Find the area of a triangle whose vertices are A(5, -2), B(6, 4)and C(7, -2)

33 Find the value of 'x' if the points (-3, 12), (7, 6) and (x, 9)are collinear.

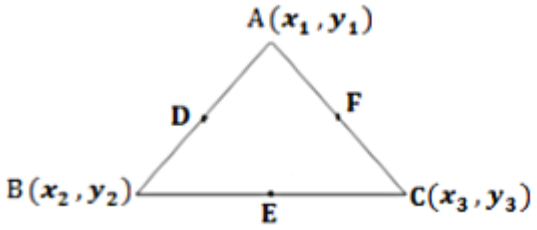
4 MARK QUESTION

34. Find the area of the triangle formed by joining the mid-points of the sides of the triangle whose vertices are (0, –1), (2, 1) and (0, 3). Find the ratio of this area to the area of the given triangle.

35 In the given figure D, E and F are the midpoints of AB, BC and AC in an order respectively, then find the area of the triangle DEF .



36 In the fig.D(3, 3), E (3,5) andF(2,4) are the midpoints of the sides of the triangle AB, BC and ACrespectively, then find the vertices of the triangle ABC .



37 'O' be the origin.B(-6,9) andC(12, -3) are the vertices of the triangle ABC. P divides OB in the ratio 1:2 and Q divide OC in the ratio 1:2 then show that PQ=$\frac{1}{3}$BC

38 A(6,1), B(8, 2) and C(9, 4) are the three vertices of a parallelogram ABCD. If E is the midpoint of DC then find the area of triangle ADE