QB365

Important Questions - Coordinate Geometry

10th Standard CBSE

Maths

Reg.No. : | | | | | | |

Time : 01:00:00 Hrs

Total Marks : 50

Section - A

1) ..... is the point of intersection of the axes of coordinates. **1**

2) Three points A, B and C are collinear, if any one of the following takes place: **1**

(ii) AC + ... = AB

3) Three points A, B and C are collinear, if any one of the following takes place: **1**

(iii) ..... + AB = CB

4) Find the distance of the point (-4, -7) from the y-axis. **1**

5) If the point (0, 0), (1, 2) and (x, y) are collinear, then find x. **1**

6) If A(1,2), B(4,3) and C(6,6) are the three vertices of a parallelogram ABCD, find the coordinates of the fourth vertex D. **1**

7) (5, 3), (11, -5) and (12, 2) are the vertices of a triangle, write the shape of the triangle. **1**

8) Determine the ratio in which the line 2x+y-4=0 divides the line segment joining A(2, -2) and B(3, 7). **1**

9) Find the distance of a point A(x,y) from the origin. **1**

10) What is the distance between the points $(10 \quad \cos 30°, \quad 0)$ and $(0, \quad 10 \quad \cos 60°)$? **1**

Section - B

11) Find the distance between the points (0,0) and (36,15) **2**

12) Find a relation between x and y such that the point (x,y) is equidistant from the points (3,6) and (-3,4). **2**

13) Find the centre of a circle passing through (5,-8), (2,-9) and (2,1). **2**

14) Find the distance between the following pairs of points: **2**

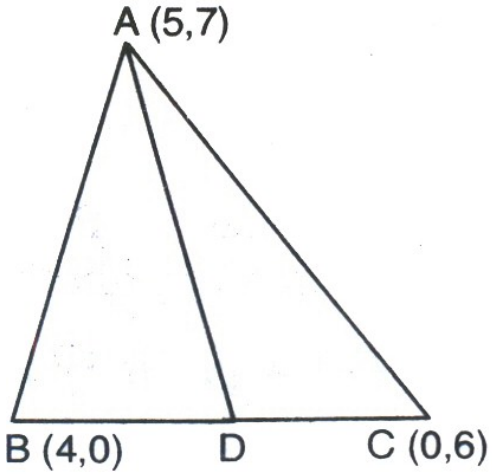
(i) (6, 4), (-5, -3)

(ii) (p-q, r-q), (p+q, q+r)

15) If P(2,1), Q(4,2), R(5,4) and S(3,3) are vertices of a quadrilateral, find the area of the quadrilateral PQRS. **2**

16) Prove that (b+a,c), (c+a,b) and (c+b,a) are collinear. **2**

17) In the given figure, find the length of the median AD. **2**



18) If point $(\frac{1}{2}, y)$ lies on the segment joining the point A(3,-5) and B(-7,9), then find the ratio in which P divides AB. Also find the value of y. **2**

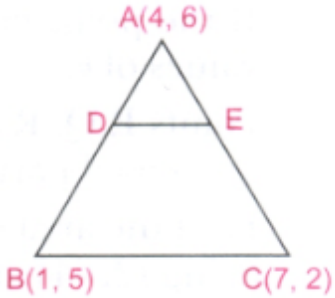
19) Find the coordinates of the points of trisection of the line segment joining (2, - 3) and (4, - 1). **2**

20) If A (- 5, 7), B (- 4, - 5) and C(-l, - 6), then find the area of ΔABC. **2**

Section - C

21) If the points A(1,-2), B(2,3), C(-3,2) and D(-4,-3) are the vertices of parallelogram ABCD, then taking AB as the base, find the height of the parallelogram. **5**

22) In the given figure, the vertices of ΔABC are A(4,6), B(1,5) and C(7,2). A line segment DE is drawn to intersect the sides AB and AC at D and E respectively such that $\frac{AD}{AB} = \frac{AE}{AC} = \frac{1}{3}$. Calculate the area of ΔADE and compare it with area of ΔABC **5**



23) Prove that the points A(2,3), B(-2,2), C(-1,-2) and D(3,-1) are the vertices of a square ABCD. **5**

24) If A(3, 4), B(- 2,3)and C(5, 6) are the vertices of a triangle ABC, find the length of the median AD from A to Be. Also verify that area of $\triangle ABD$ is equal to area of $\triangle ACD$ **5**

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