EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Coordinate Geometry

Grade : CBSE Grade X

1. Find the coordinates of the vertices of the triangle, the mid points of whose sides are $((-2),8),((-2),\frac{9}{2})$ and $(0,\frac{9}{2})$

(i) $(0,8),((-4),8),((-2),(-1))$ (ii) $(0,8),((-4),8),(1,0)$ (iii) $((-1),9),((-4),8),(0,1)$

(iv) $(0,8),((-4),8),(0,1)$ (v) $(0,8),((-2),10),(0,1)$

2. Find the points on x-axis, which are at a distance of 11 units from the point $(4,(-6))$

(i) $((5+\sqrt{85}),(-1)),((4-\sqrt{85}),0)$ (ii) $((4+\sqrt{85}),0),((4-\sqrt{85}),0)$ (iii) $((4+\sqrt{85}),0),((3-\sqrt{85}),1)$

(iv) $((6+\sqrt{85}),2),((4-\sqrt{85}),0)$ (v) $((2+\sqrt{85}),(-2)),((4-\sqrt{85}),0)$

3. The points $((-1),(-1)),(3,2),(6,(-2))$ and $(2,(-5))$ represent

(i) parallelogram (ii) rectangle (iii) trapezium (iv) rhombus (v) square

4. Find the point that bisects $(1,2)$ and $((-6),1)$

(i) $((-\frac{3}{2}),\frac{1}{2})$ (ii) $((-\frac{5}{2}),\frac{3}{2})$ (iii) $((-\frac{1}{2}),\frac{7}{2})$ (iv) $((-\frac{9}{2}),(-\frac{1}{2}))$ (v) $((-\frac{7}{2}),\frac{5}{2})$

5. If point $P(18,2)$ is equidistant from the points $(a,4)$ and $(8,(-8))$, find a

(i) 7 (ii) 1 (iii) 5 (iv) 3 (v) 4

6. A point lies on positive side of x-axis at a distance of 8 units from y-axis. What are the coordinates of the point?

(i) $(8,0)$ (ii) $(0,8)$ (iii) $((-8),0)$ (iv) $(0,(-8))$

7. Distance of the point (9,4) from x-axis is

(i) 9 (ii) 13 (iii) 4 (iv) (-5) (v) 5

8. Find the lengths of the sides of the triangle formed by the points $(5,4),((-5),4)$ and $((-3),2)$

(i) $11, 2\sqrt{2}, 2\sqrt{17}$ (ii) $10, 2\sqrt{2}, 2\sqrt{19}$ (iii) $10, 4, 2\sqrt{17}$ (iv) $10, 2\sqrt{2}, 2\sqrt{17}$

9. The points $(5,6),((-3),0)$ and $((-3),(-3))$ represent

(i) right angle triangle (ii) scalene triangle (iii) equilateral triangle (iv) collinear points

(v) isosceles triangle

10. A is a point on x-axis with abscissa (-2) and B is a point on y-axis with ordinate (-8).
Find the distance between A and B

(i) 34 (ii) $2\sqrt[4]{17}$ (iii) $2\sqrt{15}$ (iv) $2\sqrt{19}$ (v) $2\sqrt{17}$

11. The points $((-5),(-5)),(1,(-5)),(1,0)$ and $((-5),0)$ represents

(i) parallelogram (ii) rectangle (iii) rhombus (iv) trapezium (v) square

12. A point lies on negative side of x-axis at a distance of 3 units from y-axis. What are the coordinates of the point?

(i) $(0,3)$ (ii) $(3,0)$ (iii) $((-3),0)$ (iv) $(0,(-3))$

13. The mid-point of the join of points $(2,7)$ and $((-8),7)$ is

(i) $((-3),7)$ (ii) $((-2),6)$ (iii) $((-4),8)$ (iv) $((-5),5)$ (v) $((-1),9)$

14. Find the ratio in which point $((-\frac{13}{4}),\frac{14}{3})$ divides the join of points $((-2),3)$ and $((-5),7)$

(i) 4:7 (ii) 5:7 (iii) 5:9 (iv) 6:7 (v) 5:4

15. Find the centre of the circle, the endpoints of whose diameter are $(4,0)$ and $((-8),(-3))$

(i) $((-2),(-\frac{3}{2}))$ (ii) $(2,(-\frac{3}{2}))$ (iii) $((-2),\frac{3}{2})$ (iv) $((-\frac{3}{2}),(-2))$ (v) $(2,\frac{3}{2})$

16. A point lies on negative side of y-axis at a distance of 8 units from x-axis. What are the coordinates of the point?

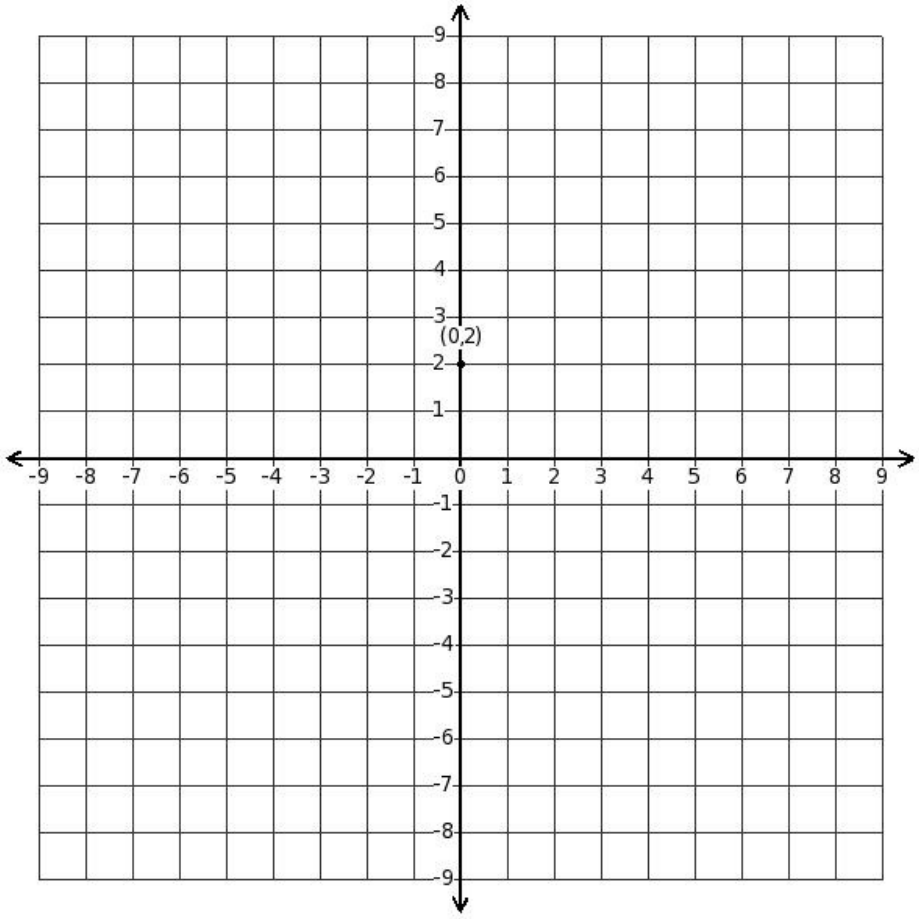
(i) $(0,8)$ (ii) $(8,0)$ (iii) $(0,(-8))$ (iv) $((-8),0)$

17. Find the perimeter of the triangle formed by the points $(6,(-2)),((-7),(-5))$ and $((-7),8)$

(i) $(\sqrt{178}+13+\sqrt[4]{269})$ (ii) $(\sqrt{178}+13+269)$ (iii) $(\sqrt{178}+13+\sqrt{269})$ (iv) $(\sqrt{178}+15+\sqrt{269})$

(v) $(\sqrt{178}+10+\sqrt{269})$

18. Distance of the given point from x-axis is



(i) 2 (ii) 0

19. Find the lengths of the medians of a triangle whose vertices are $(1,(-2)),(8,(-7))$ and $((-7),6)$

(i) $\frac{1}{2}\sqrt{74}, \frac{1}{2}\sqrt{394}, \frac{1}{2}\sqrt{394}$ (ii) $\frac{1}{2}\sqrt{10}, \sqrt{202}, \frac{1}{2}\sqrt{970}$ (iii) $\frac{1}{2}\sqrt{394}, 4\sqrt{2}, \frac{1}{2}\sqrt{74}$

20. Find the coordinates of the mid points of the sides of the triangle formed by $((-2),(-7)),((-7),(-7))$ and $((-5),5)$

(i) $((-\frac{9}{2}),(-7)),((-6),(-1)),((-\frac{7}{2}),(-1))$ (ii) $((-\frac{11}{2}),(-6)),((-6),(-1)),((-\frac{7}{2}),(-1))$

(iii) $((-\frac{9}{2}),(-7)),((-6),(-1)),((-\frac{11}{2}),(-3))$ (iv) $((-\frac{9}{2}),(-7)),((-4),1),((-\frac{7}{2}),(-1))$

(v) $((-\frac{9}{2}),(-7)),((-6),(-1)),((-\frac{5}{2}),(-2))$

21. Find the area of the quadrilateral formed by $((-4),5),(2,10),((-1),12)$ and $((-6),9)$

(i) 53 (ii) $\frac{55}{2}$ (iii) $\frac{53}{4}$ (iv) $\frac{51}{2}$ (v) $\frac{53}{2}$

22. Find the value of k such that the points $((-8),(-8)),((-8),(-4))$ and (-8,k) are collinear

(i) 4 (ii) 6 (iii) 2 (iv) 7 (v) 5

23. Find the point on y-axis which is equidistant from the points $(8,(-6))$ and $(0,(-8))$

(i) $((-2),7)$ (ii) $((-1),10)$ (iii) $(0,9)$ (iv) $(2,11)$ (v) $(1,8)$

24. Find the distance of the point $((-3),7)$ from origin

(i) $\sqrt[4]{58}$ (ii) 58 (iii) $\sqrt{58}$ (iv) $\sqrt{60}$ (v) $\sqrt{56}$

25. Find the distance between the points $(7,(-6))$ and $(1,7)$

(i) $\sqrt{203}$ (ii) $\sqrt{207}$ (iii) $\sqrt{205}$ (iv) 205 (v) $\sqrt[4]{205}$

Assignment Key

1) (iv)	2) (ii)	3) (v)	4) (ii)	5) (v)	6) (i)
7) (iii)	8) (iv)	9) (ii)	10) (v)	11) (ii)	12) (iii)
13) (i)	14) (ii)	15) (i)	16) (iii)	17) (iii)	18) (i)
19) (ii)	20) (i)	21) (v)	22) (v)	23) (iii)	24) (iii)
25) (iii)					