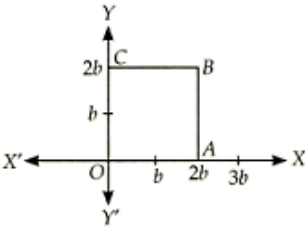
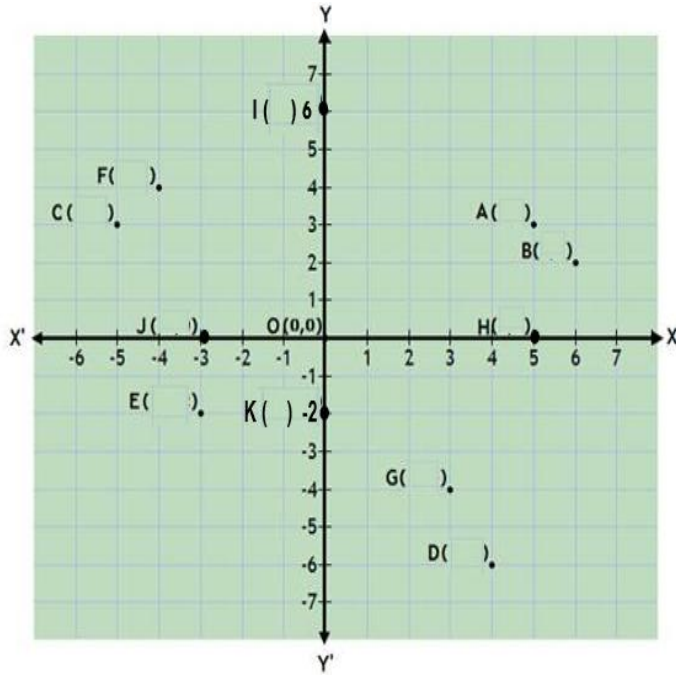


INDIAN SCHOOL AL WADI AL KABIR
Department: Mathematics
Class IX Worksheet – Coordinate Geometry (2025-26)

Questions of 1 mark each

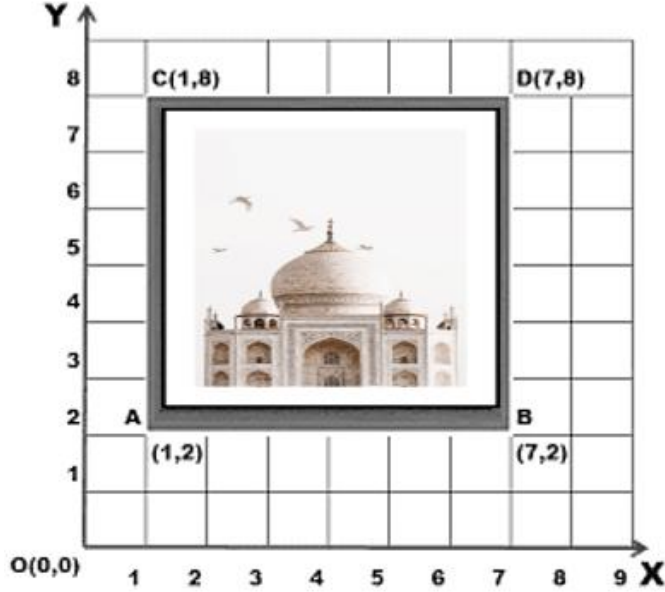
Q.1.	If the coordinates of the point P are (8, -5), then the perpendicular distance of P from the y -axis is							
	A	8	B	-8	C	-5	D	5
Q.2.	If $x > 0$ and $y < 0$, then the point (x, y) lies in quadrant.							
	A	Second	B	Fourth	C	First	D	Third
Q.3.	A point (x + 2, x + 4) lies in the first quadrant, the mirror image of this point with respect to x-axis is (5, -7). Then the value of x is							
	A	1	B	-1	C	2	D	3
Q.4.	If the coordinates of two points are P (-2, 3) and Q (-3, 5), then (abscissa of P) – (abscissa of Q) is							
	A	-1	B	-5	C	1	D	-2
Q.5.	If the x-coordinate of a point is zero, then this point lies							
	A	In I Quadrant	B	On X - axis	C	In II Quadrant	D	On Y-axis
Q.6.	If the point A (2, 0), B (-6, 0) and C (3, a -3) lie on x-axis, then the value of a is							
	A	3	B	-3	C	0	D	2
Q.7.	If side of the square OABC is 2b units, then coordinates of B are 							
	A	(2b, 0)	B	(0, 2b)	C	(2b, 2b)	D	(0, 0)

Q.8.	Abscissa of a point is positive in							
	A	I quadrant only	B	II quadrant only	C	I and II quadrants	D	I and IV quadrants
Q.9.	The point which lies on y-axis at a distance of 10 units in the negative direction of y-axis is							
	A	(0, -10)	B	(0, 10)	C	(-10, 0)	D	(10, 0)
Q.10.	If the perpendicular distance of a point from X- axis is 5 units and foot of the perpendicular lies on the negative direction of X- axis, then the							
	A	abscissa is -5	B	ordinate is 5 or -5	C	ordinate is 5 only	D	ordinate is -5 only
	<u>ASSERTION AND REASONING</u> DIRECTION: A statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option. (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A). (b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A). (c) Assertion (A) is true but Reason (R) is false. (d) Assertion (A) is false but Reason (R) is true.							
Q.11.	Assertion: The point (-5, 0) lies on y-axis and (0, -4) lies on x-axis. Reason: Every point on the x -axis has zero distance from x -axis and every point on the y -axis has zero distance from y -axis.							
Questions of 2 marks each								
Q.12.	Which of the following point lie (i) on x-axis? (ii) on y-axis? A (0,2), B (5,0), C (23,0), D (0, -12), E (0,9), F (6,0), G (3,0).							
Q.13.	Plot the point P (−5,4) and from it draw PM and PN perpendiculars to x-axis and y-axis respectively. Write the coordinates of M and N.							
Q.14.	Without plotting the points indicate the quadrant in which they will lie, if (i) Ordinate is -3 and abscissa is -2 (ii) Abscissa is 5 and ordinate is -6							
Q.15.	Plot the points A (7, 6) and B (7, -6) on a graph paper. Join them and answer the following: (i) Write the coordinate of the point where the line AB cuts the x-axis. (ii) To which axis line AB is parallel?							

Q.16.	In which quadrant or on which axis do each of the following points lie? P (9,0), Q (-5, -5), R (4,3), S (-2,4), T (8, -6), U (0,6)	
Questions of 3 marks each		
Q.17.	The three vertices of a rectangle are (3,2), (-4,2) and (-4,5). Plot these points on the graph. Find the coordinates of the fourth vertex and the area of the rectangle so formed.	
Q.18.	Find the value of x and y, if (i) $(x + 4, 5) = (5, y)$ (ii) $(-6, 2y - 3) = (x, 11)$ (iii) $(3x + 5, -8) = (11, y + 1)$	
Q.19.	Write the co-ordinates of a point (i) above the x-axis lying on the y-axis at a distance of 3 units. (ii) below the x-axis and on the y-axis at a distance of 8 units. (iii) right of origin and on the x-axis at the distance of 2 units.	
Q.20.	From the adjoining graph write the following. (i) The coordinates of B and I. (ii) The abscissa of the points D and G. (iii) The co-ordinates of the points H and J. (iv) The points identified by the coordinates (0, -2) and (-3, -2). (v) The ordinate of the points A and F. (vi) The coordinates of C.	
Q.21.	Plot the points A (1, 4), B (-2, 1) and C (4, 1). Name the figure so obtained on joining them in order and also, find its area.	
Questions of 5 marks each		
Q.22.	Draw the quadrilateral with vertices (-4, 4), (-6, 0), (-4, -4), (-2, 0). Name the type of quadrilateral and find its area.	
Q.23.	Plot three points P (9,9), Q (9, -1) and R (-3, -1) on the graph paper. Now plot point S so that PQRS is a rectangle. Draw its diagonals. Write the coordinates of point of intersection of diagonals.	

Q.24.	On National Integration Day a poster is to be made by the students of class IX of a school. This poster is in the shape of a rectangle. All the students are given with triangular piece for the display. (i) Sketch the rectangle three of whose vertices are A (0,−4), B (5, −4) and C(5,2). (ii) Find its fourth vertex D. (iii) Find the perimeter of the given poster.
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Case study question (4 marks)

Q.25.	Rohit was putting up one of his paintings in his living room. Before this Rohit had put a grid on the wall where each unit measures equal to a foot. The upper left corner of the frame is a point C (1,8) and upper right corner at D (7,8). The bottom left corner is at A (1,2) and the bottom right corner at B (7,2).  Based on the given information, answer the following questions: (i) Find the perpendicular distance of point A from x axis. (ii) Name the points with equal abscissa. (iii) What is the length of the painting with the frame? (iv) Join any one of its diagonals in the painting and find the area of the triangle so formed.
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ANSWERS

Q.1	A	Q.2	B	Q.3	D	Q.4	C
Q.5	D	Q.6	A	Q.7	C	Q.8	D
Q.9		Q.10	A	Q.11	B	Q.12	d
Q.13.	(i)B, C, F and G (ii)A, D and E	Q.14.	M (-5,0), N (0,4)	Q.15.	(i) (7, 0) (ii) parallel to y-axis	Q.16.	
Q.17.		Q.18.	(3,5) 35 sq. units	Q.19.	(i) x = 1, y = 5 (ii) x = -6, y = 7 (iii) x = 2, y = -9	Q.20.	(0,3), (0, -8), (2,0)

Q.21.	i) B (6,2), I (0,6) (ii) D (4), G (3) (iii) H (5,0), J (-3,0) (iv) K and E (v) A (3), F (4) (iv) C (-5,3)	Q.22.	Triangle, 9 sq. units	Q.23.	Rhombus, 16 square units	Q.24.	(3, 4)
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