

Worksheet: Coordinate Geometry

West Bengal State Board · Class 9 · Mathematics · 21 questions · 41 marks

Name: _____

Date: _____

Score: _____ / 41

Q1. In which quadrant does the point $(5, 2)$ lie? *[1 mark]*

Q2. In which quadrant does the point $(3, 7)$ lie? *[1 mark]*

Q3. In which quadrant does the point $(8, 4)$ lie? *[1 mark]*

Q4. Where does the point $(0, 9)$ lie? *[1 mark]*

Q5. Where does the point $(4, 0)$ lie? *[1 mark]*

Q6. Reflect $(3, 4)$ across the x-axis. *[1 mark]*

Q7. Reflect $(2, 5)$ across the y-axis. *[1 mark]*

Q8. Reflect $(4, 7)$ through the origin. *[1 mark]*

Q9. What is the ordinate of the point (6, 3)? [1 mark]

Q10. What is the abscissa of the point (5, 8)? [1 mark]

Q11. Plot the points A(2, 3), B(2, 3), C(2, 3), D(2, 3). Name the figure ABCD. [2 marks]

Q12. A point P(a, b) lies on the x-axis. What is b? Where is P if a = 7? [2 marks]

Q13. Find the distance between A(3, 5) and B(7, 5). [2 marks]

Q14. Find the distance between P(4, 2) and Q(4, 6). [2 marks]

Q15. Plot P(3, 0), Q(0, 4), R(3, 0), S(0, 4). What figure do they form? Find its area. [3 marks]

Q16. Reflect $(2, 5)$ first across the x -axis, then across the y -axis. What are the final coordinates? *[2 marks]*

Q17. Without plotting, predict the quadrant of (a, b) given $a > 0$ and $b < 0$. *[2 marks]*

Q18. Three vertices of a rectangle are $(2, 4)$, $(2, 2)$, $(8, 2)$. Find the fourth vertex and the area. *[4 marks]*

Q19. How many points (x, y) with integer coordinates lie strictly inside the rectangle with vertices $(0, 0)$, $(5, 0)$, $(5, 3)$ and $(0, 3)$? *[4 marks]*

Q20. A bug walks anti-clockwise along the perimeter of the rectangle with vertices $(0, 0)$, $(4, 0)$, $(4, 3)$, $(0, 3)$ at 1 unit/sec, starting at $(0, 0)$. Where is the bug at $t = 11$ sec? *[4 marks]*

Q21. A drone is at $(2, 5)$ km from a school. It reflects its position across the x -axis to drop a payload, then reflects its new position across the y -axis. Find its final location. *[4 marks]*
