Worksheet: Coordinate Geometry

Tamil Nadu 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]*