

5-1

NAME _____ DATE _____

The Coordinate Plane (Pages 254–259)

You can graph points on the **coordinate plane**, shown below.

<p>The Coordinate Plane</p>	<p>You name points in the coordinate plane with <i>ordered pairs</i> of the form (x, y). The first number is the x-coordinate and corresponds to numbers on the horizontal or x-axis. The second is the y-coordinate and corresponds to numbers on the vertical or y-axis. These two axes divide the plane into four quadrants. The quadrants are numbered in a counterclockwise direction, starting at the upper right corner of the plane. The axes intersect at their zero points, a point called the origin, which has an ordered pair of $(0, 0)$.</p>
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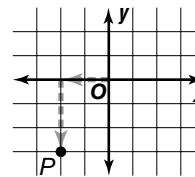
EXAMPLE

Graph the point $P(-2, -3)$. Name the quadrant in which the point is located.

Move from the origin 2 units to the left, since the x-coordinate is negative.

Then move 3 units down, since the y-coordinate is negative.

This point is in Quadrant III.



Try This Together

Use the graph in **PRACTICE** below.

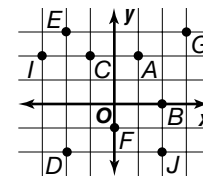
- Write the ordered pair that names point A. Name the quadrant in which the point is located.

HINT: Write your ordered pair in the form (x, y) .

PRACTICE

Write the ordered pair for each point. Name the quadrant in which the point is located.

- | | | | |
|------|------|------|------|
| 2. C | 3. D | 4. E | 5. F |
| 6. G | 7. B | 8. I | 9. J |



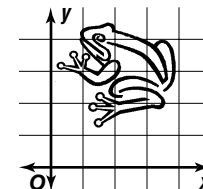
Graph each point.

- | | | | | |
|----------------|----------------|----------------|----------------|-----------------|
| 10. $M(3, 1)$ | 11. $P(2, -3)$ | 12. $T(-4, 2)$ | 13. $N(0, 4)$ | 14. $G(-5, -3)$ |
| 15. $K(-3, 3)$ | 16. $Q(5, -2)$ | 17. $Y(3, 0)$ | 18. $V(0, -1)$ | 19. $W(4, 4)$ |



- Standardized Test Practice** Which of the following gives the coordinates of the point where the frog's eye is located?

- | | |
|----------|------------|
| A (1, 4) | B (1.5, 4) |
| C (4, 1) | D (4, 1.5) |



Answers: 1. $(1, 2)$, Quadrant I 2. $(-1, 2)$, Quadrant II 3. $(-2, -2)$, Quadrant III 4. $(-2, 3)$, Quadrant II 5. $(0, -1)$, border of Quadrants III and IV 6. $(3, 3)$, Quadrant I 7. $(2, 0)$, border of Quadrant I and IV 8. $(-3, 2)$, Quadrant II 9. $(2, -2)$, Quadrant IV 10–19. See Answer Key. 20. B