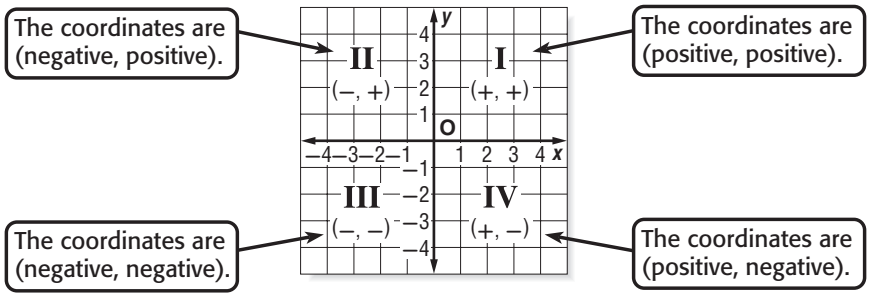
NAME _____ DATE _____ PERIOD _____

2-6 Study Guide and Intervention

Graphing in Four Quadrants



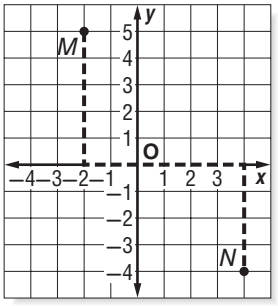
Example **Graph and label each point on a coordinate plane. Name the quadrant in which each point lies.**

a. *M*(−2, 5)

Start at the origin. Move 2 units left. Then move 5 units up and draw a dot. Point $M(-2, 5)$ is in Quadrant II.

b. *N*(4, −4)

Start at the origin. Move 4 units right. Then move 4 units down and draw a dot. Point $N(4, -4)$ is in Quadrant IV.



Exercises

Graph and label each point on the coordinate plane. Name the quadrant in which each point is located.

1. $A(2, 6)$

2. $B(-1, 4)$

3. $C(0, -5)$

4. $D(-4, -3)$

5. $E(2, 0)$

6. $F(3, -2)$

7. $G(-4, 4)$

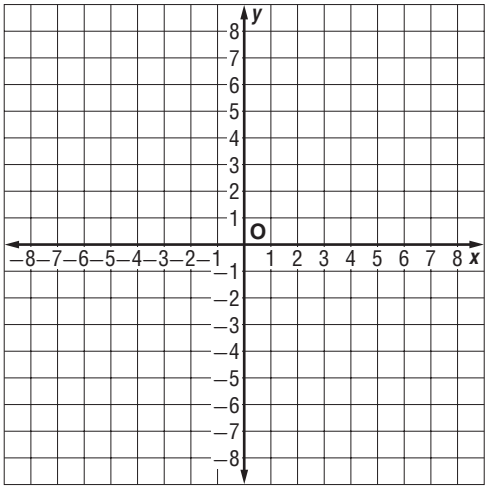
8. $H(2, -5)$

9. $I(6, 3)$

10. $J(-5, -8)$

11. $K(3, -5)$

12. $L(-7, -3)$



NAME _____ DATE _____ PERIOD _____

2-6 Study Guide and Intervention *(continued)*

Graphing in Four Quadrants

Graph Algebraic Relationships A coordinate graph can be used to show relationships between two numbers.

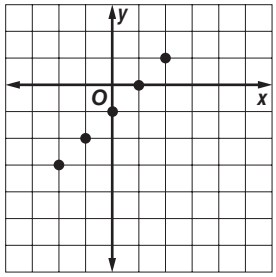
Example **MONEY The difference between Zora's and Charlie's bank accounts is \$1. If x represents Zora's bank account and y represents Charlie's bank account, make a function table of possible values for x and y. Graph the ordered pairs and describe the graph.**

Step 1 Make a table. Choose values for x and y that have a difference of 1.

Step 2 Graph the ordered pairs.

The points are along a diagonal line that crosses the x-axis at $x = 1$.

$x - y = 1$		
x	y	(x, y)
2	1	(2, 1)
1	0	(1, 0)
0	−1	(0, −1)
−1	−2	(−1, −2)
−2	−3	(−2, −3)



Exercises

1. **TEMPERATURE** The sum of two temperatures is 3°F. If x represents the first temperature and y represents the second temperature, make a function table of possible values for x and y. Graph the ordered pairs and describe the graph.

$x + y = 3$		
x	y	(x, y)