LESSON 3-2 Practice B
Graphing on a Coordinate Plane

Give the coordinates of each point and quadrant.

1. F
   \[ \frac{1}{2}, 1 \]
2. X
   \[ \frac{1}{2}, 1 \]
3. T
   \[ \frac{1}{2}, 1 \]
4. B
   \[ \frac{1}{2}, 1 \]
5. D
   \[ \frac{1}{2}, 1 \]
6. R
   \[ \frac{1}{2}, 1 \]
7. H
   \[ \frac{1}{2}, 1 \]
8. Y
   \[ \frac{1}{2}, 1 \]

Graph each point on a coordinate plane.

9. A(2\,\frac{1}{2}, 1)
10. B(0, 4)
11. C(2, -1.5)
12. D(-2, 3.5)
13. E(-2\,\frac{1}{3}, 0)
14. F(-1\,\frac{1}{2}, -3)

Complete the table of ordered pairs. Graph each ordered pair on a coordinate plane. Draw a line through the points.

15. \[ y = \frac{1}{2}x \]

<table>
<thead>
<tr>
<th>x</th>
<th>(\frac{1}{2}x)</th>
<th>y</th>
<th>(x, y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Graphing on a Coordinate Plane: Practice A

Give the coordinates and quadrant of each point.
1. A (5, 3); I
2. B (2, 1); I
3. C (2, 6); I
4. D (2, 6); II
5. E (−5, 2); II
6. F (−5, −5); III
7. G (−5, −4); IV
8. H (−1, −3); III

Graph each point.
9. A(1, 2)
10. M(3, −2)
11. N(−1, 1)
12. P(2, 5)
13. R(−3, −2)
14. S(0, −3)

Complete the table. Graph the equation.
15. \( y = x + 4 \)

<table>
<thead>
<tr>
<th>( x )</th>
<th>( x + 4 )</th>
<th>( y )</th>
<th>( (x, y) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0 + 4</td>
<td>4</td>
<td>(0, 4)</td>
</tr>
<tr>
<td>1</td>
<td>1 + 4</td>
<td>5</td>
<td>(1, 5)</td>
</tr>
<tr>
<td>2</td>
<td>2 + 4</td>
<td>6</td>
<td>(2, 6)</td>
</tr>
</tbody>
</table>

16. Tabi is 4 years older than her sister. Use the equation and coordinate grid in Exercise 15 to graph the point for \( x = 5 \). The \( y \)-value represents Tabi’s age. How old is Tabi?

Graphing on a Coordinate Plane: Practice B

Give the coordinates of each point and quadrant.
1. F (−2, −3); III
2. X (−6, 3); II
3. T (8, −3); IV
4. B (5, −4); IV
5. D (−4, 4); II
6. R (1, −8); IV
7. H (3, 8); I
8. Y (−5, −6); III

Graph each point on a coordinate plane.
9. A(2, 1)
10. B(0, 4)
11. C(2, −1.5)
12. D(−2, 3.5)
13. E(−3, 0)
14. F(−1, −3)

Complete the table of ordered pairs. Graph each ordered pair on a coordinate plane.

<table>
<thead>
<tr>
<th>( x )</th>
<th>( \frac{1}{2}x )</th>
<th>( y )</th>
<th>( (x, y) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>( \frac{1}{2}(0) )</td>
<td>0</td>
<td>(0, 0)</td>
</tr>
<tr>
<td>1</td>
<td>( \frac{1}{2}(1) )</td>
<td>( \frac{1}{2} )</td>
<td>( 1, \frac{1}{2} )</td>
</tr>
<tr>
<td>2</td>
<td>( \frac{1}{2}(2) )</td>
<td>3</td>
<td>(2, 3)</td>
</tr>
</tbody>
</table>

Graphing on a Coordinate Plane: Practice C

Give the coordinates of each point.
1. \( p \) (3, −4); IV
2. \( R \) (−3, −3); III
3. \( S \) (1, 6); I
4. \( T \) (8, −1); IV
5. \( U \) (−2, 1); II
6. \( W \) (6, −8); IV
7. \( X \) (−6, 3); II
8. \( Y \) (−9, −7); III

Graph each point on a coordinate plane.
9. A(2, 4)
10. B(−1, −2)
11. C(0, −3.5)
12. D(−2, 1.5)
13. E(3, 0)
14. F(−1, −1.5)

Complete the table of ordered pairs. Graph each ordered pair on a coordinate plane.

<table>
<thead>
<tr>
<th>( x )</th>
<th>( 8x − 7 )</th>
<th>( y )</th>
<th>( (x, y) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>( 8(0) − 7 )</td>
<td>−7</td>
<td>(0, −7)</td>
</tr>
<tr>
<td>1</td>
<td>( 8(1) − 7 )</td>
<td>1</td>
<td>(1, 1)</td>
</tr>
<tr>
<td>2</td>
<td>( 8(2) − 7 )</td>
<td>9</td>
<td>(2, 9)</td>
</tr>
</tbody>
</table>

16. Samantha owes her brother $7. One day she works 6 hours and gets paid $8 per hour. Use the equation and coordinate grid in Exercise 15 to graph the point for \( x = 6 \). How much money does Samantha have after paying her brother?

Reaching for Success: Reaching for Success

Point A is described by the ordered pair (3, −2). The first number, 3, is the \( x \)-coordinate and the second number, −2, is the \( y \)-coordinate.

Using a grid to represent a coordinate plane, graph point A by starting at the origin, where the \( x \)-axis and \( y \)-axis intersect. The \( x \)-coordinate, 3, tells you to go right 3. The \( y \)-coordinate, −2, tells you to go down 2.

Write an ordered pair to describe each point on the coordinate plane above.
1. point C (0, 6)
2. point F (−5, 4)
3. point O (−2, −5)

Graph each ordered pair.
4. J(2, 1)
5. K(−3, 0)
6. L(5, −4)
7. M(−4, −4)
8. N(−2, 6)
9. P(3, −2)

The graph of an equation is the set of all ordered pairs that are solutions of the equation.

Complete the table. Graph each ordered pair.

<table>
<thead>
<tr>
<th>( x )</th>
<th>( 4x )</th>
<th>( y )</th>
<th>( (x, y) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>( 4(0) = 0 )</td>
<td>0</td>
<td>(0, 0)</td>
</tr>
<tr>
<td>1</td>
<td>( 4(1) = 4 )</td>
<td>4</td>
<td>(1, 4)</td>
</tr>
<tr>
<td>2</td>
<td>( 4(2) = 8 )</td>
<td>8</td>
<td>(2, 8)</td>
</tr>
</tbody>
</table>

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