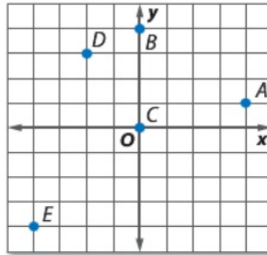## QuickCheck | QuickReview

Write the ordered pair for each point. Then name the quadrant in which it is located.

1. A (4, 1); **I**
2. B **(0, 4); y-axis**
3. C (0, 0); **origin**
4. D (−2, 3); **II**
5. E (−4, −4); **III**

6. **BABYSITTING** Aliza earns $6 per hour babysitting. Make a table in which the x-coordinate represents the number of hours Aliza babysits, and the y-coordinate represents the amount of money she earns. **See margin.**

Evaluate each expression if $a = -3$, $b = 4$, and $c = -2$.

7. $4a - 3$ **−15**
8. $2b - 5c$ **18**
9. $b^2 - 3b + 6$ **10**
10. $\dfrac{2a + 4b}{c}$ **−5**

11. **PHONE SERVICE** A cell phone company uses the expression $20 + 0.25m$ to determine the monthly charge for m minutes of air time. Find the monthly charge for 80 minutes of air time. **$40**
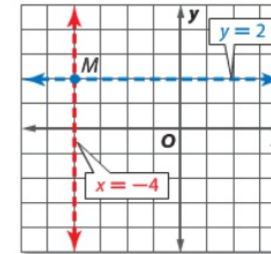

Example 1 (Used in Lessons 2-1 through 2-8)

Write the ordered pair for point M. Then name the quadrant in which it is located.

Step 1 Follow a vertical line through the point to find the x-coordinate on the x-axis.

Step 2 Follow a horizontal line through the point to find the y-coordinate on the y-axis.

Step 3 The ordered pair for point M is (−4, 2). It can also be written as M(−4, 2).

The x-coordinate of M is negative, while the y-coordinate is positive. So M lies in Quadrant II.

Example 2 (Used in Lessons 2-1 through 2-8)

Evaluate $3a^2 - 2ab + b^2$ if $a = 4$ and $b = -3$.

$$3a^2 - 2ab + b^2 = 3(4^2) - 2(4)(-3) + (-3)^2$$
$$= 3(16) - 2(4)(-3) + 9$$
$$= 48 - (-24) + 9$$
$$= 48 + 24 + 9$$
$$= 81$$

written as $M(-4, 2)$.

The x-coordinate of M is negative, while the y-coordinate is positive. So M lies in Quadrant II.

Evaluate each expression if $a = -3$, $b = 4$, and $c = -2$.

7. $4a - 3$ **−15**

8. $2b - 5c$ **18**

9. $b^2 - 3b + 6$ **10**

10. $\dfrac{2a + 4b}{c}$ **−5**

11. **PHONE SERVICE** A cell phone company uses the expression $20 + 0.25m$ to determine the monthly charge for m minutes of air time. Find the monthly charge for 80 minutes of air time. **$40**

Solve each equation for the given variable.

12. $4x + 2y = 12$ for y **$y = 6 - 2x$**

13. $a = 3b + 9$ for b **$b = \dfrac{a}{3} - 3$**

14. $15w - 10 = 5v$ for v **$v = 3w - 2$**

15. $3x - 4y = 8$ for x **$x = \dfrac{8}{3} + \dfrac{4}{3}y$**

16. $\dfrac{d}{6} + \dfrac{f}{3} = 4$ for d **$d = -2f + 24$**

Example 2   (Used in Lessons 2-1 through 2-8)

Evaluate $3a^2 - 2ab + b^2$ if $a = 4$ and $b = -3$.

$3a^2 - 2ab + b^2 = 3(4^2) - 2(4)(-3) + (-3)^2$

$= 3(16) - 2(4)(-3) + 9$

$= 48 - (-24) + 9$

$= 48 + 24 + 9$

$= 81$

Example 3   (Used in Lessons 2-2 through 2-4)

Solve $3x + 6y = 24$ for y.

$3x + 6y = 24$	Original equation
$3x + 6y - 3x = 24 - 3x$	Subtract $3x$ from each side.
$6y = 24 - 3x$	Simplify.
$\dfrac{6y}{6} = \dfrac{24}{6} - \dfrac{3x}{6}$	Divide each side by 6.
$y = 4 - \dfrac{1}{2}x$	Simplify.

---

2 **Online Option** Take an online self-check Chapter Readiness Quiz at connectED.mcgraw-hill.com. ☑