Review Key Vocabulary

integer, *p. 4*   additive inverse, *p. 10*   quadrant, *p. 36*
absolute value, *p. 4*   coordinate plane, *p. 36*   *x*-axis, *p. 36*
opposites, *p. 10*   origin, *p. 36*   *y*-axis, *p. 36*

Review Examples and Exercises

1.1 Integers and Absolute Value *(pp. 2–7)*

Find the absolute value of −2.

Graph −2 on a number line.

The distance between −2 and 0 is 2.
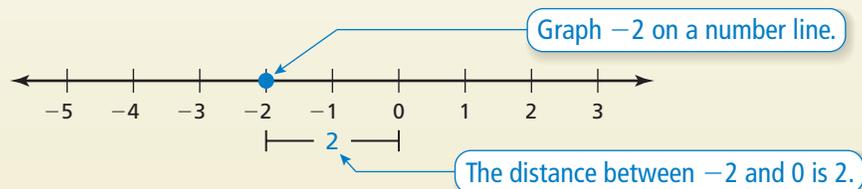
So, $|-2| = 2$.

Exercises

Find the absolute value of the integer.

1. 3   **2.** −9   **3.** −17   **4.** 8

5. ELEVATION The elevation of Death Valley, CA is −282 feet. The Mississippi River in Illinois has an elevation of 279 feet. Which is closer to sea level?

1.2 Adding Integers *(pp. 8–13)*

Find 6 + (−14).

$6 + (-14) = -8$ $|6|$ is less than $|-14|$. So, subtract $|6|$ from $|-14|$.

Use the sign of −14.

The sum is −8.

Exercises

Add.

6. $-16 + (-11)$ **7.** $-15 + 5$ **8.** $100 + (-75)$ **9.** $-32 + (-2)$

1.3 Subtracting Integers *(pp. 14–19)*

Subtract.

a. $7 - 19 = 7 + (-19)$ Add the opposite of 19.

        $= -12$ Add.

   The difference is -12.

b. $-6 - (-10) = -6 + 10$ Add the opposite of -10.

        $= 4$ Add.

   The difference is 4.

Exercises

Subtract.

10. $8 - 18$ **11.** $-16 - (-5)$ **12.** $-18 - 7$ **13.** $-12 - (-27)$

14. GAME SHOW Your score on a game show is -300. You answer the final question incorrectly, so you lose 400 points. What is your final score?

1.4 Multiplying Integers *(pp. 22–27)*

a. Find $-7 \cdot (-9)$.

The integers have the same sign.

$$-7 \cdot (-9) = 63$$

The product is positive.

   The product is 63.

b. Find $-6(14)$.

The integers have different signs.

$$-6(14) = -84$$

The product is negative.

   The product is -84.

Exercises

Multiply.

15. $-8 \cdot 6$ **16.** $10(-7)$ **17.** $-3 \cdot (-6)$ **18.** $-12(5)$

1.5 **Dividing Integers** *(pp. 28–33)*

Find 30 ÷ (−10).

> The integers have different signs.

$$30 \div (-10) = -3$$

> The quotient is negative.

∴ The quotient is −3.

Exercises

Divide.

19. $-18 \div 9$ **20.** $\dfrac{-42}{-6}$ **21.** $\dfrac{-30}{6}$ **22.** $84 \div (-7)$

Find the mean of the integers.

23. $-3, -8, 12, -15, 9$ **24.** $-54, -32, -70, -25, -65, -42$

25. PROFITS The table shows the weekly profits of a fruit vendor. What is the mean profit for these weeks?

Week	1	2	3	4
Profit	−$125	−$86	$54	−$35

**1.6** **The Coordinate Plane** *(pp. 34–39)*

Plot (a) $(−3, 0)$ and (b) $(4, −4)$ in a coordinate plane. Describe the location of each point.

a. Start at the origin. Move 3 units left. Then plot the point.

The point is on the x-axis.

b. Start at the origin. Move 4 units right and 4 units down. Then plot the point.

The point is in Quadrant IV.
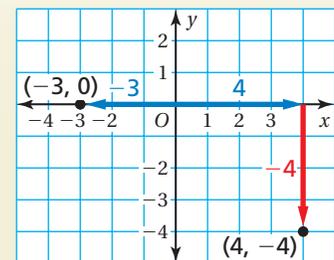
Exercises

Plot the ordered pair in a coordinate plane. Describe the location of the point.

26. $A(1, 3)$ **27.** $B(0, -3)$ **28.** $C(-4, -2)$ **29.** $D(-1, 2)$

30. GEOMETRY The points $A(-3, 5)$, $B(-3, -3)$, and $C(4, -3)$ are vertices of a figure. Draw the figure in a coordinate plane. Name three points that lie inside the figure.