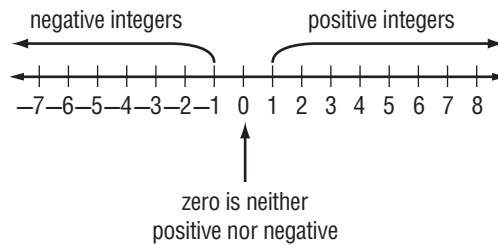


Lesson 1 Integers and Absolute Value

Integers less than zero are **negative integers**. Integers greater than zero are **positive integers**.



The **absolute value** of an integer is the distance the number is from zero on a number line. Two vertical bars are used to represent absolute value. The symbol for absolute value of 3 is $|3|$.

Example 1

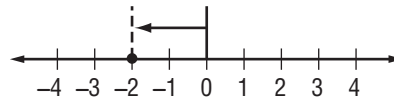
Write an integer that represents 160 feet below sea level.

Because it represents *below* sea level, the integer is -160 .

Example 2

Evaluate $|-2|$.

On the number line, the point -2 is 2 units away from 0. So, $|-2| = 2$.



Exercises

Write an integer for each situation.

1. 12°C above zero

2. a loss of \$24

3. a gain of 20 pounds

4. falling 6 feet

Evaluate each expression.

5. $|12|$

6. $|-150|$

7. $|-8| + 2$

8. $|6| + |5|$

9. $|-19| - 17$

10. $|84| - |-62|$

Lesson 1 Skills Practice

Integers and Absolute Value

Write an integer for each situation.

1. 15°C below zero

2. a profit of \$27

5. 376 feet above sea level

6. a withdrawal of \$200

9. a deposit of \$41

10. 240 B.C.

Evaluate each expression.

13. $|-1|$

14. $|9|$

17. $|-45|$

18. $|19|$

21. $|-8| + |4|$

22. $|-12| - |12|$

Graph each set of integers on a number line.

23. $\{0, 2, -3\}$

24. $\{-4, -1, 3\}$

