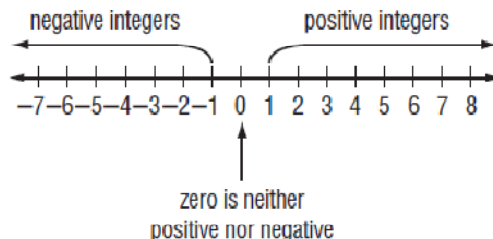


**2-1 Study Guide and Intervention*****Integers and Absolute Value***

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



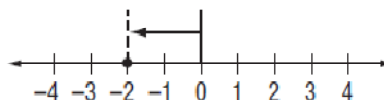
The **absolute value** of an integer is the distance the number is from zero on a number line. Two vertical bars are used to represent absolute value. The symbol for absolute value of 3 is  $|3|$ .

**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 graph of  $-2$  is 2 units away from 0. So,  $|-2| = 2$ .

**Exercises**

Write an integer for each situation.

- |   |   |
|---|---|
| 1. $12^{\circ}\text{C}$ above 0 <b>12</b> | 2. a loss of \$24 <b><math>-24</math></b> |
| 3. a gain of 20 pounds <b>20</b>          | 4. falling 6 feet <b><math>-6</math></b>  |

Evaluate each expression.

- |                      |                        |
|----------------------|------------------------|
| 5. $ 12 $ <b>12</b>  | 6. $ -150 $ <b>150</b> |
| 7. $ -8 $ <b>8</b>   | 8. $ 75 $ <b>75</b>    |
| 9. $ -19 $ <b>19</b> | 10. $ 84 $ <b>84</b>   |