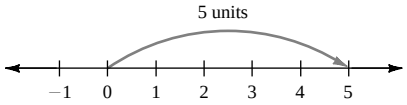
2.10 Absolute Value of a Negative Integer

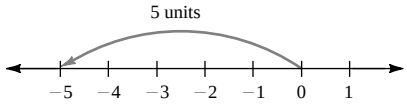
• Example 1

(*a*) The absolute value of 5 is the distance on the number line between 0 and 5.



The absolute value of 5 is 5. 5 is 5 units from 0.

(*b*) The absolute value of -5 is the distance on the number line between 0 and -5.



The absolute value of -5 is 5. -5 is also 5 units from 0.

We usually write the absolute value of a number by placing vertical bars before and after the number. For this Example we can write

$|5| = 5$ and $|-5| = 5$

|5| is read "the absolute value of 5."

CHECK YOURSELF 1

Complete the following statements.

a. The absolute value of -9 is _____.
b. The absolute value of -12 is _____.
c. $|-6| =$ **d.** $|-15| =$

CHECK YOURSELF ANSWER

1. (a) 9; **(b)** 12; **(c)** 6; **(d)** 15.

2.10 Exercises

Name

Section Date

ANSWERS

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Indicate whether the following statements are true or false.

1. $|-6| = -6$

2. The absolute value of -9 is -9.

3. $|-20| = 20$

4. The absolute value of -3 is 3.

5. $|-9| = -9$

6. The absolute value of -5 is 5.

7. The absolute value of -18 is -18.

8. $|-8| = 8$

Complete the following statements.

9. $|-20| =$ __.

10. The absolute value of -12 is __.

11. $|-15| =$ __.

12. The absolute value of -10 is __.

13. The absolute value of -12 is __.

14. $|-15| =$ __.