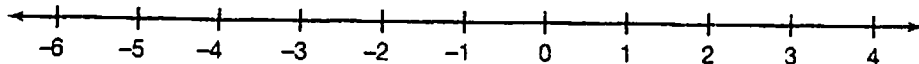




SKILL 2: Absolute Value

The **absolute value** of a number is its distance from 0 on the number line.



The symbol for absolute value is $| \quad |$. Since -5 is 5 units from 0, the absolute value of -5 is 5. In symbols, $|-5| = 5$. The distance from 0 to 3 is 3 units, so $|3| = 3$.

An integer and its opposite are the same distance from 0 on the number line. This means that a number and its opposite always have the same absolute value. For example, $|-5| = 5$ and $|5| = 5$.

Example 1

Find $|-2|$.

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

Example 2

Name the two integers that have an absolute value of 8.

Start at 0 on the number line and count 8 units to the left. You arrive at -8 , so $|-8| = 8$.

Start at 0 on the number line and count 8 units to the right. You arrive at 8, so $|8| = 8$.

The two integers with an absolute value of 8 are -8 and 8.

Guided Practice

Find each absolute value. Refer to the number line if you need help.

1. $|-7|$

-7 is _____ units from 0.

So $|-7| =$ _____.

2. $|6|$

6 is _____ units from 0.

So $|6| =$ _____.

Use a number line to complete the sentences.

3. Start at 0 and go 4 units to the left. You arrive at _____. So $|-4| =$ _____.

4. Start at 0 and go 4 units to the right. You arrive at _____. So $|4| =$ _____.

5. The two integers with an absolute value of 4 are _____ and _____.

SKILL 2: Practice

Find each absolute value.

- | | | |
|--------------------|---------------------|---------------------|
| 1. $ 10 =$ _____ | 2. $ -29 =$ _____ | 3. $ -13 =$ _____ |
| 4. $ 92 =$ _____ | 5. $ 36 =$ _____ | 6. $ -56 =$ _____ |
| 7. $ 0 =$ _____ | 8. $ 80 =$ _____ | 9. $ -400 =$ _____ |
| 10. $ 21 =$ _____ | 11. $ -48 =$ _____ | 12. $ -47 =$ _____ |
| 13. $ 42 =$ _____ | 14. $ -31 =$ _____ | 15. $ 74 =$ _____ |
| 16. $ 17 =$ _____ | 17. $ -17 =$ _____ | 18. $ -74 =$ _____ |

Name two integers that have the given absolute value.

- | | |
|--------------|---------------|
| 19. 14 _____ | 20. 3 _____ |
| 21. 32 _____ | 22. 19 _____ |
| 23. 20 _____ | 24. 100 _____ |
| 25. 45 _____ | 26. 53 _____ |
| 27. 96 _____ | 28. 400 _____ |
| 29. 84 _____ | 30. 37 _____ |

Solve.

31. Elevations above sea level are represented by positive numbers. Elevations below sea level are represented by negative numbers. What two elevations have an absolute value of 1,000 ft? _____



32. Find
- $|-11|$
- .

A -11	C 1
B -1	D 11

Skill 2

33. What is the opposite of
- -36
- ?

F 63	H 0
G 36	J -63

Skill 1