

6.4**Absolute Value**

NAME _____

Date _____ Period _____

Find the absolute value.

1. $|-5|$

2. $|7|$

3. $|0|$

4. $|-31|$

Complete the statement using $<$, $>$, or $=$.

5. 7 _____ $|-4|$

6. -9 _____ $|-10|$

7. $|8|$ _____ $|-8|$

Because _____

_____Because _____

_____Because _____

_____**Order the values from least to greatest.**

8. $0, -5, |-6|, |-2|, 4$

9. $|-12|, -21, |25|, |-31|, -14, 33$

_____, _____, _____, _____, _____

_____, _____, _____, _____, _____, _____

10. You go to a store in a mall that is on the fourth floor above the main level. Your friend goes to a store that is two floors below the main level.

- Write an integer for the position of each person relative to the main level.
- Find the absolute value of each integer.
- Who is farther from the main level? Explain.

11. **REASONING** Write two integers that have an absolute value of 10.
12. **CAVES** Three scientists explore a cave. Which scientist is farthest underground?
 Scientist A: -48 ft Scientist B: -62 ft Scientist C: -53 ft

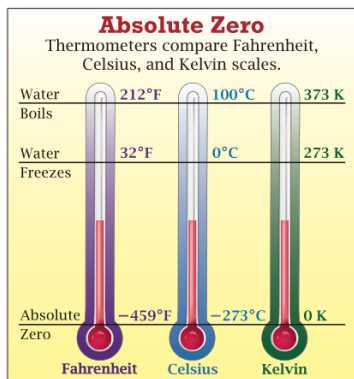
13. **ERROR ANALYSIS** Describe and correct the error in finding the absolute value.

X $|14| = -14$

MATCHING Match the account balance with the debt that it represents.

Explain your reasoning. A. debt $>$ \$25 B. debt = \$25 C. debt $<$ \$25

14. account balance = $-\$25$ 15. account balance $<$ $-\$25$ 16. account balance $>$ $-\$25$



17. **ABSOLUTE ZERO** The coldest possible temperature is called *absolute zero*. It is represented by 0 K on the Kelvin temperature scale.

- a. Which temperature is closer to 0 K: 32°F or -50°C ?
- b. What do absolute values and temperatures on the Kelvin scale have in common?

Tell whether the statement is *always*, *sometimes*, or *never* true. Explain.

18. The absolute value of a number is greater than the number.
19. The absolute value of a negative number is positive.
20. The absolute value of a positive number is its opposite.
21. **PALINDROME** A *palindrome* is a word or sentence that reads the same forward as it does backward.
 - a. Graph and label the following points on a number line: $A = -2$, $C = -1$, $E = 0$, $R = -3$. Then graph and label the absolute value of each point on the *same* number line.
 - b. What word do the letters spell? Is this a palindrome?

