Independent Practice

eHelp

Find the opposite of each integer. (Example 1)

1. 6 _____

Show your work.

2. −3 _____

3. 0 _____

Find the opposite of the opposite of each integer. (Example 2)

4. 12 _____

5. −9 _____

6. −17 _____

Evaluate each expression. (Examples 3–5)

7. $|-14| =$ _____

8. $|31| - |-1| =$ _____

9. $|-15| + |-6| =$ _____

10. Jayson spent $18 on a shirt. Then he spent $24 on a pair of pants. What is the total amount he spent? (Example 6) _____

11. Lilly saw a jelly fish at 6 feet below sea level. She saw a bright blue fish at 10 feet below sea level. What is the distance between the blue fish and the jelly fish? (Example 6) _____

12. **STEM** The table shows the melting points of various elements. Is the absolute value of the melting point of neon greater than or less than the absolute value of the melting point of hydrogen? _____

Element	Melting Point (°C)
Hydrogen	−259
Neon	−248
Oxygen	−218

13. **STEM** The surface of Jupiter is made of colorful clouds created by various chemicals in the atmosphere. The temperature at the top of the clouds is −230°F. The temperature below the clouds is 70°F. Which temperature has the lower absolute value? _____

PS **Reason Abstractly** Evaluate each expression.
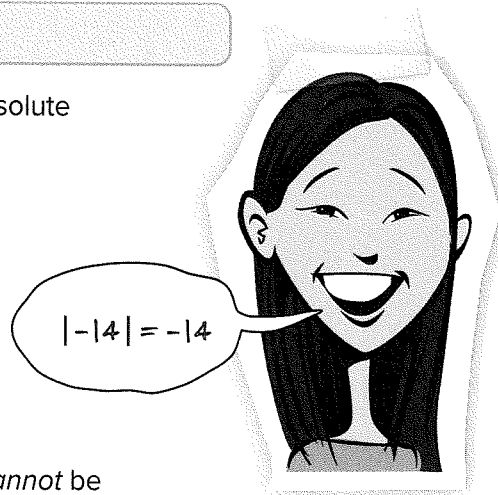
14. $-|3| =$ _____

15. $|5 + 9| =$ _____

16. $|17 - 8| =$ _____

17. (PS) **Find the Error** Mei is evaluating an expression using absolute value. Find her mistake and correct it.

$|-14| = -14$

18. (PS) **Which One Doesn't Belong?** Identify the phrase that *cannot* be described by the same absolute value as the other three. Explain your reasoning.

| a loss of 8 pounds | 8 miles above sea level | giving away $8 | 18° below normal |

(PS) **Persevere with Problems** Determine whether each statement is *always*, *sometimes*, or *never* true. Explain.

19. The absolute value of a positive integer is a negative integer.

20. If a and b are integers and $a > b$, then $|a| > |b|$.

21. (PS) **Reason Abstractly** Explain why the absolute value of a number is never negative.

22. (PS) **Reason Abstractly** Explain why an account balance less than -40 dollars represents a debt greater than 40 dollars.

23. (PS) **Reason Inductively** Is $-n$ *always*, *sometimes*, or *never* a positive number? Explain your reasoning.