

6.EE.A.2 Order of Operations – Expressions with Absolute Values

6.EE.A.2 Write, read, and evaluate expressions in which letters stand for numbers.

Simplify:

1. $|-2|$

- [A] $\frac{1}{2}$ [B] 2 [C] -2 [D] $-\frac{1}{2}$

2. $-8 - |-7 - 8| - 6$

- [A] -29 [B] 3 [C] 1 [D] -1

Evaluate:

3. $|-2.3|$

4. $|-12 - (-2)|$

Simplify:

5. $13 - 14 - |-13| + |15 - 14 + 4|$

6. $1 - 12 - |-11| - [-|-13|]$

7. $-[-(-3)] - \{-[-(-1)]\}$

8. Evaluate the expression for $a = -6$ and $b = -2$.
 $|a| + |4b|$

- [A] -14 [B] 2 [C] 14 [D] -2

9. Evaluate the expression $|x| + |y| - |z|$ when $x = 3$, $y = -2$, and $z = -5$.

10. Compare the quantities in Column A and Column B.

Column A

Column B

$|a|$

$|-a|$

- [A] The quantity in Column A is greater.
[B] The quantity in Column B is greater.
[C] The quantities are equal.
[D] The relationship cannot be determined from the information given.

11. Use the problem solving strategy *Guess and Test* to find two values each for a and b , where a is positive and b is negative, to make the statement $|a - b| = |b - a|$ true.

12. Use the problem solving strategy of *Guess and Test* to find two values each for a and b to make the statement $-|ab| = ab$ true.

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Answer Key

6.EE.A.2 Write, read, and evaluate expressions in which letters stand for numbers.

[1] B _____

[2] A _____

[3] 2.3 _____

[4] 10 _____

[5] -9 _____

[6] -9 _____

[7] -2 _____

[8] C _____

[9] 0 _____

[10] C _____

Answers may vary. Sample: $a = 2$ and

[11] $b = -2$, $a = 3$ and $b = -3$. _____

Answers may vary. Sample: $a = -2$, $b = 2$

[12] and $a = -5$, $b = 3$ _____