

6.EE.A.2 Solve Expressions with Exponents following PEMDAS

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

1. Which expression has a negative value?

[A] $-(-54)^9$ [B] $(-42)(-53)(60)$

[C] $\frac{-62 - (-25)}{-3}$ [D] $|75 - 80(16)|$

[E] $(74 - 62) \div (-56 + 24)$

7. $(-5)^4$

8. Calculate: $32 \div 4 - 4^2$

Simplify:

2. $2^3 \times 21 + 15 \div 3$

[A] 173 [B] 171 [C] 96 [D] 91.5

3. $2^3 \times 20 + 36 \div 4$

[A] 169 [B] 98 [C] 112 [D] 164

4. $(32^2 - 3 \cdot 20 \div 3 + 8) \cdot 4$

5. $(12^2 - 5 \cdot 24 \div 5 + 28) \cdot 4$

6. $-(4)^4$

9. Use the order of operations to explain why the equation $2^2 \cdot (6 + 5) = 29$ is false.

10. Write the key sequence you would use to simplify $\frac{2^5 - 5}{3 \cdot 3} + 10$.

11. Write the keystrokes you would use to evaluate the exponential expression $450 \cdot 1.2^5$.

12. Explain how to use the number of negative factors to determine whether the value of a product like $(-2)(-2)(-2)(-2)$ is positive or negative.

6.EE.A.2 Solve Expressions with Exponents following PEMDAS

Answer Key

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

[1] E _____

[2] A _____

[3] A _____

[4] 4048 _____

[5] 592 _____

[6] -256 _____

[7] 625 _____

[8] -8 _____

[9] Perform operations inside parentheses first.

$((2 ^ 5 - 5) \div ($

[10]