

6.EE.A.2 Evaluating Expressions (Part 1)

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

- 1 What is the value of the expression $|-5x + 12|$ when $x = 5$?
1) -37 2) -13 3) 13 4) 37
- 2 The value of the expression $-|a - b|$ when $a = 7$ and $b = -3$ is
1) -10 2) 10 3) -4 4) 4
- 3 If $r = 2$ and $s = -7$, what is the value of $|r| - |s|$?
1) 5 2) -5 3) 9 4) -9
- 4 What is the value of the expression $2x^3y$ when $x = -2$ and $y = 3$?
1) -192 2) -108 3) -48 4) 48
- 5 If $x = 4$ and $y = -2$, the value of $\frac{1}{2}xy^2$ is
1) 32 2) 8 3) -4 4) -8
- 6 What is the value of the expression $(a^3 + b^0)^2$ when $a = -2$ and $b = 4$?
1) 64 2) 49 3) -49 4) -64
- 7 What is the value of the expression $-3x^2y + 4x$ when $x = -4$ and $y = 2$?
1) -112 2) -80 3) 80 4) 272
- 8 What is the value of $\frac{x^2 - 4y}{2}$, if $x = 4$ and $y = -3$?
1) -2 2) 2 3) 10 4) 14
- 9 If $x = -4$ and $y = 3$, what is the value of $x - 3y^2$?
1) -13 2) -23 3) -31 4) -85
- 10 If $a = 3$ and $b = -1$, what is the value of $ab - b^2$?
1) -2 2) 2 3) -4 4) 4
- 11 If $t = -3$, then $3t^2 + 5t + 6$ equals
1) -36 2) -6 3) 6 4) 18
- 12 If $x = 2$ and $y = -3$, what is the value of $2x^2 - 3xy - 2y^2$?
1) -20 2) -2 3) 8 4) 16
- 13 If $x = -3$, what is the value of $|x - 4| - x^2$?
1) -8 2) -2 3) 7 4) 16
- 14 What is the value of the expression $3a^2 - 4|a| + 6$ when $a = -3$?
1) -24 2) -9 3) 21 4) 45
- 15 When $x = 4$, the value of $2x^0 + x!$ is
1) 24 2) 25 3) 26 4) 28
- 16 Brett was given the problem: "Evaluate $2x^2 + 5$ when $x = 3$." Brett wrote that the answer was 41. Was Brett correct? Explain your answer.

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Answer Key

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1 ANS: 3

$$|-5(5) + 12| = |-13| = 13$$

12 ANS: 3

$$2(2)^2 - 3(2)(-3) - 2(-3)^2 = 8 + 18 - 18 = 8$$

2 ANS: 1

$$-|a - b| = -|7 - (-3)| = -|-10| = -10$$

13 ANS: 2

$$|-3 - 4| - (-3)^2 = 7 - 9 = -2$$

3 ANS: 2

$$|2| - |-7| = 2 - 7 = -5$$

14 ANS: 3

$$3(-3)^2 - 4|-3| + 6 = 27 - 12 + 6 = 21$$

4 ANS: 3

$$2x^3y = 2(-2)^3(3) = -48$$

15 ANS: 3

$$2(4)^0 + (4)! = 2 + 24 = 26$$

5 ANS: 2

$$\frac{1}{2}(4)(-2)^2 = 2(4) = 8$$

16 ANS:

$$\text{No, the answer is 23. } 2(3)^2 + 5 = 2(9) + 5 = 18 + 5 = 23$$

6 ANS: 2

7 ANS: 1

$$-3(-4)^2(2) + 4(-4) = -96 - 16 = -112$$

8 ANS: 4

$$\frac{4^2 - 4(-3)}{2} = \frac{16 + 12}{2} = \frac{28}{2} = 14$$

9 ANS: 3

$$-4 - 3(3)^2 = -4 - 3(9) = -4 - 27 = -31$$

10 ANS: 3

$$(3)(-1) - (-1)^2 = -3 - 1 = -4$$

11 ANS: 4

$$3(-3)^2 + 5(-3) + 6 = 3(9) - 15 + 6 = 27 - 15 + 6 = 12 + 6 = 18$$