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

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

1. Evaluate: $22 + k$ for $k = 25$

2. Complete the table for the given values of x.

x	$3x + 3$
0	
1	
2	
3	

3. Evaluate $2d + 5e$, where d is 6 and e is 6.9.

4. Use $a = -2$, $b = -3$, and $c = 6$ to write an expression that has a value of 12.

5. Evaluate $-a - a - (b - b)$ for $a = -5$ and $b = -4$.

[A] 0 [B] 10 [C] -18
[D] 2 [E] -2

6. Evaluate: $\frac{x}{y}$ for $x = -\frac{1}{7}$ and $y = -\frac{1}{11}$

7. Evaluate $\frac{np}{n+p}$ when $n = 9$ and $p = 15$.

8. Evaluate: $\frac{2}{3}u - v$ for $u = 2.1$ and $v = 1.8$

[A] 0.20 [B] -0.4 [C] 2.4 [D] -1.1

9. Evaluate $\frac{ef}{e+f}$ for $e = 6$ and $f = 11$.

[A] $\frac{66}{17}$ [B] $\frac{198}{17}$ [C] $\frac{66}{85}$ [D] $\frac{17}{66}$

10. Evaluate $\frac{y}{4x} - z$ for $x = 2$, $y = 24$, and $z = 1$.

[A] 4 [B] 2 [C] -5 [D] -7

11. Evaluate $2y^2(x + y)$ when $x = 1$ and $y = 5$.

[A] 105 [B] 300 [C] 450 [D] 55

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12. Given $x = 4$ and $y = 2$, evaluate the expression x^2y^2.

[A] 12 [B] 64 [C] 32 [D] 16

13. Find the value of $2x^2 + x - 2$ when $x = -2$.

Evaluate:

14. $(5e + 5f)^2$ when $e = 5$ and $f = -2$.

15. $\frac{y}{2x} \cdot z^2$ when $x = 6$, $y = 168$, and $z = 12$.

[A] 336 [B] 24,192

[C] 1008 [D] 2016

16. Evaluate the expression $\frac{a^2 + b^2 - c^2}{2ab}$ when $a = 4$, $b = 3$, and $c = 5$.

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

Column A	Column B
$6z - 5$ if $z = -2$	$-6z - 5$ if $z = 2$

[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.

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

Column A	Column B
c^{59} if $c = -50$	c^{58} if $c = -50$

[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.

19. Use the problem solving strategy *Guess and Test* to find two values of n that make the equation $4n = n^3$ true.

20. Complete: "To evaluate an expression with a variable, you... ."

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Answer Key

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

[1] 47

[2]

x	$3x+3$
0	3
1	6
2	9
3	12

[3] 46.5

[4] Answers may vary. Sample: $ab+c$

[5] B

[6] $\frac{11}{7}$

[7] $\frac{45}{8}$

[8] B

[9] A

[10] B

[11] B

[12] B

[13] 4

[14] 225

[15] D

[16] 0

[17] C

[18] B

[19] True for $n = -2, 0, 2$

[20] Replace the variable (unknown) with a number and find the value of the expression.