

Properties of Real Numbers Bell Work

State the property of real numbers that is used.

1. $(a \cdot b^2)c = a(b^2c)$

2. $2x - 3y = -3y + 2x$

3. $4(2a - b) = 8a - 4b$

4. $6 + (7 + a) = 6 + (a + 7)$

5. $(3x)y = y(3x)$

Multiple Choice:

6. What is value of the expression $3(-4 + 3)$?

- A. $4(3) + 4(3)$
- B. $3(-4) + 3(3)$
- C. $4(3) - 4(3)$
- D. $3(4) + 3(3)$

7. The expression $2 + 3(2x - 5)$ can be simplified to:

- A. $6x - 13$
- B. $6x + 13$
- C. $6x - 17$
- D. $6x + 17$

8. The expression $6(x + 3) - 2(4 - x)$ can be simplified to:

- E. $5x + 5$
- F. $8x + 10$
- G. $5x - 5$
- H. $8x + 1$

9. The expression $5 + 3(2x - 6)$ can be simplified to:

- I. $6x + 23$
- J. $6x - 23$
- K. $6x - 13$
- L. $6x + 13$

10. What is simplified expression of $4x - 2[7 - 5(2x - 3)]$?

- M. $24x + 16$
- N. $-16x + 16$
- O. $-16x - 44$
- P. $24x - 44$

Name: _____ Period: _____ Date: _____

Properties of Real Numbers Bell Work

Using the properties of real numbers, simplify the following expressions:

11. $2 + 3(2x - 5)$

12. $5(4r - 7t) - 2(10r + 3t)$

13. $4 + 2(2a - 3)$

14. $5a - 2[3 - 2(4a + 3)]$

15. $5 - 3(4x - 2y)$

Properties of Real Numbers Bell Work

ANSWER: State the property of real numbers that is used.

1. $(a \cdot b^2)c = a(b^2c)$ Associative property of multiplication
2. $2x - 3y = -3y + 2x$ Commutative property of addition
3. $4(2a - b) = 8a - 4b$ Distributive property
4. $6 + (7 + a) = 6 + (a + 7)$ Associative property of addition
5. $(3x)y = y(3x)$ Commutative property of multiplication

Multiple Choice:

6. What is value of the expression $3(-4 + 3)$?
 - A. $4(3) + 4(3)$
 - B. $3(-4) + 3(3)$
 - C. $4(3) - 4(3)$
 - D. $3(4) + 3(3)$
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10. What is simplified expression of $4x - 2[7 - 5(2x - 3)]$?
 - M. $24x + 16$
 - N. $-16x + 16$
 - O. $-16x - 44$
 - P. $24x - 44$

Properties of Real Numbers Bell Work

Using the properties of real numbers, simplify the following expressions:

$$\begin{aligned} 11. \quad & 2 + 3(2x - 5) \\ &= 2 + 6x - 15 \\ &= 6x - 13 \end{aligned}$$

$$\begin{aligned} 12. \quad & 5(4r - 7t) - 2(10r + 3t) \\ &= 20r - 35t - 20r - 6t \\ &= -41t \end{aligned}$$

$$\begin{aligned} 13. \quad & 4 + 2(2a - 3) \\ &= 4 + 4a - 6 \\ &= 4a - 2 \end{aligned}$$

$$\begin{aligned} 14. \quad & 5a - 2[3 - 2(4a + 3)] \\ &= 5a - 2[3 - 8a - 6] \\ &= 5a - 2[-8a - 3] \\ &= 5a + 16a + 6 \\ &= 21a + 6 \end{aligned}$$

$$\begin{aligned} 15. \quad & 5 - 3(4x - 2y) \\ &= 5 - 12x + 6y \end{aligned}$$