

Expressions and Equations

Answer the following questions using your Unit 3 Vocabulary chart.

1. What is the difference between an *expression* and an *equation*? Give an example of each.
2. Give an example where the Distributive Property is used correctly.
3. What is a common mistake students make when using the Distributive Property?
4. Regroup the terms listed below into three groups of *like terms*.
 $3x^2, -4y, 6, 10y, y, 18, -8x^2$

Simplify the expressions by using the Distributive Property and combining like terms (if possible).

5. $2(-3b - 9) + 10$

6. $5r - 10r$

7. $5 + 7 + 11p - 2p$

8. What are the values of n that would make the following equations true?

a. $(ny + 1) + (6y + 1) = (10y + 2)$

b. $(4x + 5) - (nx + 6) = (-6x - 1)$

c. $(nz) + (nz + 17) = (10z + 17)$

Solve each of the following equations.

9. $-3(b - 9) = -27$

10. $5x + 7 = 8$

11. $3(x + 1) + 5x - 5 = 14$

12. $2(x - 1) - 7x = 13$

13. $18 = -6(x - 1) + 7$

