

# Practice 2-3

## Simplifying Algebraic Expressions

**Simplify each expression.**

1.  $16 + 7y - 8$   
\_\_\_\_\_

2.  $18m - 7 + 12m$   
\_\_\_\_\_

3.  $5(3t) - 7(2t)$   
\_\_\_\_\_

4.  $2x - 9y + 7x + 20y$   
\_\_\_\_\_

5.  $3(9k - 4) - 4(5n - 3)$   
\_\_\_\_\_

6.  $6(g - h) - 6(g - h)$   
\_\_\_\_\_

7.  $-21(a + 2b) + 14a - 9b$   
\_\_\_\_\_

8.  $-7a + 3(a - c) + 5c$   
\_\_\_\_\_

9.  $-2(-5)q + (-72)(-q)$   
\_\_\_\_\_

**Name the coefficients, the like terms, and the constants.**

	Coefficients	Like Terms	Constants
10. $3x + 7$	_____	_____	_____
11. $4m + (-3n) + n$	_____	_____	_____
12. $6kp + 9k + kp - 14$	_____	_____	_____
13. $-8y + 6ab + 7 - 3ba$	_____	_____	_____
14. $c + 2c + c - 5c + 1$	_____	_____	_____

**Use a model to simplify each expression.**

15.  $1y + 4 + 3y - 5 + 2y$  \_\_\_\_\_

16.  $4x - 6 - 2x + 3x + 1$  \_\_\_\_\_

**Justify each step.**

17.  $5(n + 4) + 9n = (5n + 20) + 9n$  \_\_\_\_\_  
 $= 5n + (20 + 9n)$  \_\_\_\_\_  
 $= 5n + (9n + 20)$  \_\_\_\_\_  
 $= (5n + 9n) + 20$  \_\_\_\_\_  
 $= (5 + 9)n + 20$  \_\_\_\_\_  
 $= 14n + 20$  \_\_\_\_\_

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