10-1

Practice

Simplifying Algebraic Expressions

Use the Distributive Property to rewrite each expression.

1.
$$6(z+4)$$

2.
$$-7(c+2)$$

3.
$$(d+5)9$$

4.
$$(h + 8)(-3)$$

5.
$$5(y-2)$$

6.
$$3(6-n)$$

7.
$$-4(s-4)$$

$$8. -9(2-p)$$

9.
$$2(3x + 1)$$

10.
$$-5(4n-5)$$

11.
$$8(u-2v)$$

12.
$$3a(7b + 6c)$$

Identify the terms, like terms, coefficients, and constants in each expression.

13.
$$4b + 7b + 5$$

14.
$$8 + 6t - 3t + t$$

15.
$$-5x + 4 - x - 1$$

Simplify each expression.

16.
$$h + 6h$$

17.
$$10k - k$$

18.
$$3b + 8 + 2b$$

19.
$$4 + 5v + v$$

20.
$$-2f + 3 - 2f - 8$$

21.
$$-7s - 5 - 7s + 9$$

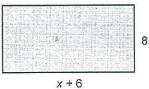
22.
$$-\frac{3}{4}x - \frac{1}{3} + \frac{7}{8}x - \frac{1}{2}$$
 23. $5c - 3d - 12c + d$ **24.** $-y + 9z - 16y - 25z$

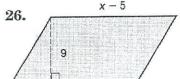
23.
$$5c - 3d - 12c + d$$

24.
$$-y + 9z - 16y - 25z$$

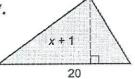
Write two equivalent expressions for the area of each figure.







27.



28. PAINTING Mr. Torres paid \$43 for supplies to paint his office. He paid one person \$8 per hour to prepare the office to be painted and another person \$10 per hour to paint the office. If both people worked h hours, write two expressions that you could use to represent the total cost of painting the office.

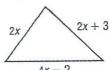
Word Problem Practice

Simplifying Algebraic Expressions

- 1. GAMES At the Beltway Outlet store, you buy x computer games for \$13 each and a magazine for \$4. Write an expression in simplest form that represents the total amount of money you spend.
- 2. TENNIS Two weeks ago James bought 3 cans of tennis balls. Last week he bought 4 cans of tennis balls. This week he bought 2 cans of tennis balls. The tennis balls cost d dollars per can. Write an expression in simplest form that represents the total amount that James spent.

- 3. AMUSEMENT PARKS Sari and her friends are going to play miniature golf. There are p people in the group. Each person pays \$5 for a round of golf and together they spend \$9 on snacks. Write an expression in simplest form that represents the total amount that Sari and her friends spent.
- 4. BICYCLING The bicycle path at the park is a loop that covers a distance of m miles. Jorge biked 2 loops each on Monday and Wednesday and 3 loops on Friday. On Sunday Jorge biked 10 miles. Write an expression in simplest form that represents the total distance that Jorge biked this week.

5. GEOMETRY Write an expression in simplest form for the perimeter of the triangle below.



6. SIBLINGS Mala is y years old. Her sister is 4 years older than Mala. Write an expression in simplest form that represents the sum of the ages of the sisters.

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