Name _____ Date_____

8-1 Skills Practice: *Simplifying Algebraic Expressions* Math8

1. Use the Distributive Property to rewrite each expression.

a. $6(z + 4)$ **b.** $-7(c + 2)$ **c.** $(d + 5)9$ **d.** $(h + 8)(-3)$

e. $5(y - 2)$ **f.** $3(6 - n)$ **g.** $-4(s - 4)$ **h.** $-9(2 - p)$

i. $2(3x + 1)$ **j.** $-5(4n - 5)$ **k.** $8(u - 2v)$ **k.** $3a(7b + 6c)$

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

a. $4b + 7b + 5$ **b.** $8 + 6t - 3t + t$ **c.** $-5x + 4 - x - 1$

3. Simplify each expression.

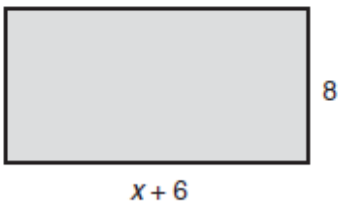
a. $h + 6h$ **b.** $10k - k$ **c.** $3b + 8 + 2b$

d. $4 + 5v + v$ **e.** $-2f + 3 - 2f - 8$ **f.** $-7s - 5 - 7s + 9$

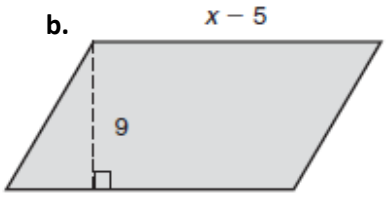
g. $1\frac{3}{4}x - \frac{1}{3} + \frac{7}{8}x - \frac{1}{2}$ **h.** $5c - 3d - 12c + d$ **i.** $-y + 9z - 16y - 25z$

4. Write two equivalent expressions for the area of each figure.

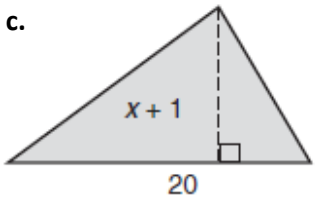
a.



b.



c.



5. 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.

6. 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.

7. 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.

8. 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.