

Identify the terms and like terms in the expression. (Section 3.1)

1.  $11x + 2x$

2.  $9x - 5x$

3.  $21x + 6 - x - 5$

4.  $8x + 14 - 3x + 1$

Simplify the expression. (Section 3.1)

5.  $2(3x + x)$

6.  $-7 + 3x + 4x$

7.  $2x + 4 - 3x + 2 + 3x$

8.  $7x + 6 + 3x - 2 - 5x$

Find the sum or difference. (Section 3.2)

9.  $(s + 12) + (3s - 8)$

10.  $(9t + 5) + (3t - 6)$

11.  $(2 - k) + 3(-4k + 2)$

12.  $\frac{1}{4}(q - 12) + \frac{1}{3}(q + 9)$

13.  $(n - 8) - (-2n + 2)$

14.  $-3(h - 4) - 2(-6h + 5)$

Factor out the coefficient of the variable. (Section 3.2)

15.  $5c - 15$

16.  $\frac{2}{9}j + \frac{2}{3}$

17.  $2.4n + 9.6$

18.  $-6z + 12$



19. **PAINTING** You buy the same number of brushes, rollers, and paint cans. Write an expression in simplest form that represents the total amount of money you spend for painting supplies. (Section 3.1)

20. **APPLES** A basket holds  $n$  apples. You pick  $2n - 3$  apples, and your friend picks  $n + 4$  apples. Write an expression that represents the number of apples you and your friend picked. Interpret the expression. (Section 3.2)

21. **EXERCISE** Write an expression in simplest form for the perimeter of the exercise mat. (Section 3.1)



# Terms

1.)  $11x, 2x$

2.)  $9x, -5x$

3.)  $21x, 6, -x, -5$

4.)  $8x, 14, -3x, 1$

5.)  $6x + 2x = 8x$

7.)  $2x - 6$

9.)  $45 + 4$

11.)  $(2 - k) + (-12k + 6)$   
 $-13k + 8$

13.)  $n - (-2n) - 8 - 2$   
 $3n - 10$

# Like terms

$13x$

$4x$

$16x, 1$

$5x, 15$

6.)  $7x - 7$

8.)  $5x + 4$

10.)  $12x - 1$

12.)  $(\frac{1}{4}q - 3) + (\frac{1}{3}q + 5)$   
 $\frac{7}{12} \Rightarrow \frac{3}{12} + \frac{4}{12}$

14.)  $-3h + 12 + 12h - 10$   
 $9h + 2$

$$15.) 5(c-3)$$

$$16.) \left(\frac{2}{a}j + \frac{6}{a}\right)$$

$$\frac{2}{a}(j+3)$$

$$17.) 2.4(n+4)$$

$$18.) 6(-z+2)$$

$$19.) 21.79p + 3.99b + 6.89r = \text{total}$$

$$20.) (2n-3) + (n+4)$$
$$3n+1$$

$$21.) w + 3w + w + 3w =$$
$$8w$$