

**QUESTION 2** Circle the like terms.

- a  $3b, 5a, 9a$  \_\_\_\_\_      b  $4x, 5y, 6x$  \_\_\_\_\_      c  $9x, 3a, 5x$  \_\_\_\_\_  
d  $9a, 3d, 6a$  \_\_\_\_\_      e  $8y, 3a, 3y$  \_\_\_\_\_      f  $3l, 5m, 5l$  \_\_\_\_\_  
g  $3d, 2c, 5c$  \_\_\_\_\_      h  $9, 8x, 5x$  \_\_\_\_\_      i  $10y, y, x$  \_\_\_\_\_

**QUESTION 1** Collect like terms to simplify the following.

- a  $x + x + x + y + y =$  \_\_\_\_\_      b  $m + m + m + m + n + n + n =$  \_\_\_\_\_  
c  $a + a + a + a + a + b =$  \_\_\_\_\_      d  $l + l + l + m + m + m =$  \_\_\_\_\_  
e  $e + e + f + f + f + f + f =$  \_\_\_\_\_      f  $u + u + u + v + v + v + v + v =$  \_\_\_\_\_

**QUESTION 1** Add the following expressions.

- a  $3x + 8x =$  \_\_\_\_\_      b  $5x + 11x =$  \_\_\_\_\_  
c  $9x + 7x =$  \_\_\_\_\_      d  $18x + 9x =$  \_\_\_\_\_  
e  $16x + 25x =$  \_\_\_\_\_      f  $30x + 14x + x =$  \_\_\_\_\_

**QUESTION 2** Subtract the following expressions.

- a  $6a - 2a =$  \_\_\_\_\_      b  $15a - 7a =$  \_\_\_\_\_  
c  $8a - 3a =$  \_\_\_\_\_      d  $17x - 2x =$  \_\_\_\_\_  
e  $14m - 6m - m =$  \_\_\_\_\_      f  $8y - 3y - y =$  \_\_\_\_\_

**QUESTION 4** Simplify the following expressions.

- a  $8a + 5 + 7a + 9 =$  \_\_\_\_\_      b  $16 - 3a + 7 =$  \_\_\_\_\_      c  $8x^2 + 9x - x^2 =$  \_\_\_\_\_  
d  $9xy \times 6y =$  \_\_\_\_\_      e  $4 \times 5x \times 3y =$  \_\_\_\_\_      f  $-5x \times -6x =$  \_\_\_\_\_  
g  $8ab + 7ab - 3ba =$  \_\_\_\_\_      h  $5x - 9x + x =$  \_\_\_\_\_      i  $(-3x) \times (-6y) =$  \_\_\_\_\_

**QUESTION 5** Simplify.

- a  $3 \times (2a + 4a) =$  \_\_\_\_\_      b  $5 \times (8x - 5x) =$  \_\_\_\_\_      c  $-3 \times (7a - 3a) =$  \_\_\_\_\_  
d  $(5a + 3a) \times 2 =$  \_\_\_\_\_      e  $(9x + 7x) \times 2x =$  \_\_\_\_\_      f  $(12a - 10a) \times 3b =$  \_\_\_\_\_  
g  $8p + 3 \times 7p =$  \_\_\_\_\_      h  $5x \times 6y \div 3y =$  \_\_\_\_\_      i  $18p - 3 \times 2p =$  \_\_\_\_\_

**QUESTION 4** Simplify the following.

a  $9x + 3y - 6x + 2y =$  \_\_\_\_\_

c  $6m + 3n - n - m =$  \_\_\_\_\_

e  $8a + 3b + 2b - 6a =$  \_\_\_\_\_

b  $20a + 3b + 8b - 11a =$  \_\_\_\_\_

d  $6x^2 - 4x^2 - x^2 + 3x^2 =$  \_\_\_\_\_

f  $10a + 4a - 5b - b =$  \_\_\_\_\_

**QUESTION 6** Collect like terms and simplify.

a  $ab + bc - ab - bc + ac =$  \_\_\_\_\_

c  $9x^2 + 10x^2 - 3x^2 =$  \_\_\_\_\_

e  $18xyz + 15xyz - 4xy =$  \_\_\_\_\_

g  $8x^2y^2 + 9x + 4x^2y^2 + 6x =$  \_\_\_\_\_

b  $9a^2b - 5ab^2 - 3ab^2 + 2a^2b =$  \_\_\_\_\_

d  $19xyz + 6y + 4xyz - 5y =$  \_\_\_\_\_

f  $36a^2 + 15b^2 - 14a^2 =$  \_\_\_\_\_

h  $9a^3 + 8a^3 - 3b^3 + 6b^3 =$  \_\_\_\_\_