

Math Sheet

Name _____ Score _____ / 10 Teacher _____ Date _____

Writing Algebraic Expressions

Write an algebraic expression for each phrase.

1. Write an expression for: the sum of z and 7

2. Write an expression for: 2 over 3 times the grouped quantity (the sum of c and 9)

3. Write an expression for: the sum of (1 over 3 times the grouped quantity (the sum of x and 7)) and (9 times q)

4. Write an expression for: 4 more than c

5. Write an expression for: 2 over 5 times the grouped quantity (the sum of g and 6)

6. Write an expression for: the sum of (1 over 3 of y) and (the difference between (1 over 5 of n) and 7)

7. Write an expression for: w minus 4

8. Write an expression for: 1 over 2 times the grouped quantity (the sum of d and 5)

9. Write an expression for: the sum of r squared and (the product of 9 and p)

10. Write an expression for: 4 subtracted from m

Writing Algebraic Expressions

Answer key

Write an algebraic expression for each phrase.

1. **Write an expression for: the sum of z and 7**

$$z + 7$$

A sum joins the two named quantities.

2. **Write an expression for: 2 over 3 times the grouped quantity (the sum of c and 9)**

$$\frac{2}{3}(c + 9)$$

The outside factor multiplies the whole grouped quantity, so keep the parentheses. The fraction is a coefficient multiplying the quantity that follows. A sum joins the two named quantities.

3. **Write an expression for: the sum of (1 over 3 times the grouped quantity (the sum of x and 7)) and (9 times q)**

$$\frac{1}{3}(x + 7) + 9q$$

A sum joins the two named quantities. The outside factor multiplies the whole grouped quantity, so keep the parentheses. The fraction is a coefficient multiplying the quantity that follows. A product multiplies the named factors.

4. **Write an expression for: 4 more than c**

$$c + 4$$

A sum joins the two named quantities.

5. **Write an expression for: 2 over 5 times the grouped quantity (the sum of g and 6)**

$$\frac{2}{5}(g + 6)$$

The outside factor multiplies the whole grouped quantity, so keep the parentheses. The fraction is a coefficient multiplying the quantity that follows. A sum joins the two named quantities.

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Writing Algebraic Expressions

Answer key

Write an algebraic expression for each phrase.

6. **Write an expression for: the sum of (1 over 3 of y) and (the difference between (1 over 5 of n) and 7)**

$$\frac{1}{3}y + \frac{1}{5}n - 7$$

A sum joins the two named quantities. A product multiplies the named factors. The fraction is a coefficient multiplying the quantity that follows. Keep the minuend first and subtract the second quantity.

7. **Write an expression for: w minus 4**

$$w - 4$$

Keep the minuend first and subtract the second quantity.

8. **Write an expression for: 1 over 2 times the grouped quantity (the sum of d and 5)**

$$\frac{1}{2}(d + 5)$$

The outside factor multiplies the whole grouped quantity, so keep the parentheses. The fraction is a coefficient multiplying the quantity that follows. A sum joins the two named quantities.

9. **Write an expression for: the sum of r squared and (the product of 9 and p)**

$$r^2 + 9p$$

A sum joins the two named quantities. Squared means the base is multiplied by itself. A product multiplies the named factors.

10. **Write an expression for: 4 subtracted from m**

$$m - 4$$

Words such as "less than" and "subtracted from" name the amount removed first, so start with the quantity after "than" or "from."