

examples

Algebra I
Notes 3.3 Adding Expressions

Objective: Simplify expressions by grouping like terms.

Definitions:

algebraic expression –

term –

like terms –

coefficient –

constant –

To simplify an algebraic expression, you add like terms.

1. Which are “like” terms: $2x, 4y, 9, 3x, 5y, 7$

_____ and _____; _____ and _____; _____ and _____

Simplify the expression:

$$2x + 4y + 9 + 3x + 5y + 7 = \underline{\hspace{4cm}}$$

2. Which are “like” terms: $2w, 4z, 3, w, z, -2$

_____ and _____; _____ and _____; _____ and _____

Simplify the expression:

$$(2w + 4z + 3) + (w + z + -2) = \underline{\hspace{4cm}}$$

term order:

In 1–8, simplify.

1. $-3 + t + -8$

2. $5x + -4x + 7x$

3. $6a + -7b + -3 + -2a$

4. $0 + -5a$

5. $-(-5) + y$

6. $7a + 6x + -7a$

7. $-12t^2 + 8t + -3t^2$

8. $2.3x + 5.1 + -4.6x$

Add the following like terms.

1. $(2x + 5) + (4x + 3)$ _____

2. $(3b + 1) + (2b - 5)$ _____

Add each expression to $3m + 5.3$.

3. $-2m - 3$ _____

4. $m + 1$ _____

5. $3 - 2m$ _____

Use the expression $3c + 8$ for Exercises 6–8.

6. What is the coefficient of c ? _____

7. What is the constant? _____

8. What is the variable? _____

9. On Saturday, Danica bought 4 CD boxed sets and 2 individual CDs. The next week she bought 2 CD boxed sets and 5 individual CDs. Represent the boxed sets and individual CDs algebraically, and determine the expression for the sum.

$x = \text{boxed set}$