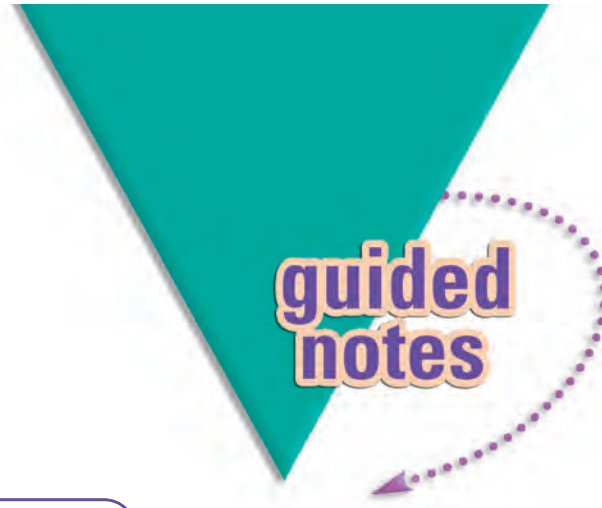


NAME \_\_\_\_\_

**Module 2** Writing and Simplifying Algebraic Expressions

**Lesson 1** Using the Language of Algebra



guided  
notes

### Lesson Objectives

- Define algebraic vocabulary.
- Identify the coefficient of a term.
- Classify polynomials by the number of terms.
- Find the degree of a monomial.
- Find the degree of a polynomial.

A **variable** \_\_\_\_\_ is a letter that stands for an unknown number.

A variable can be represented by **upper** \_\_\_\_\_ and **lower** \_\_\_\_\_ case letters.

Variables can also be greek letters, such as  **$\alpha, \beta, \delta, \sigma, \chi, \theta, \Omega,$  and  $\pi$  (pi)** \_\_\_\_\_.

An **algebraic expression** \_\_\_\_\_ is a combination of numbers, one or more variables, and operations.

A number, a variable, or a product of numbers and variables is called a **term** \_\_\_\_\_.

Two examples of terms are **6.5** \_\_\_\_\_ and **x** \_\_\_\_\_.

(Answers may vary.)

A **monomial** \_\_\_\_\_ is an expression containing one term.

A **coefficient** \_\_\_\_\_ is the number that is multiplied by a variable.

1 What is the coefficient of  $-4xyz^2$ ? **-4** \_\_\_\_\_

2 What is the coefficient of  $\frac{3t}{4}$ ?  **$\frac{3}{4}$**  \_\_\_\_\_

The terms in a polynomial are separated by **+ or addition** \_\_\_\_\_ and **- or subtraction** \_\_\_\_\_ signs.

A polynomial is a **monomial** \_\_\_\_\_ or the **sum** \_\_\_\_\_  
of monomials.

A **binomial** \_\_\_\_\_ is an expression containing two terms.

A **trinomial** \_\_\_\_\_ is an expression containing three terms.

Polynomial	Number of Terms	Example
Monomial	<b>1</b>	<b><math>3ab</math></b>
Binomial	<b>2</b>	<b><math>3y - 4</math></b>
Trinomial	<b>3</b>	<b><math>z^2 + 7z - 8</math></b>

**3** Classify the polynomial  $x^2 - 36$  as a monomial, binomial, or trinomial.

**Binomial**

The degree of a monomial is the **sum** \_\_\_\_\_ of the  
**exponents** \_\_\_\_\_ of its **variables** \_\_\_\_\_.

**4** What is the degree of the monomial  $5x^4y^2$ ? **6** \_\_\_\_\_

The degree of a polynomial is the **highest** \_\_\_\_\_ degree of any  
term of the polynomial.

The degree of the polynomial  $x^3 - 2x^2 - x + 1$  is **3** \_\_\_\_\_.