Every game has its own special equipment. Football uses a ball and a playing field that are different from those of any other game. Chess has its special board, pieces, and pawns. In algebra, one of the most important pieces of equipment is...

**The Algebraic Term**

An algebraic term is a product of a number and variables. The numbers and letters that are multiplied together are called the factors of the term. The main parts of a term are:

- **The coefficient**
  
  \[ 12 = 2 \times 2 \times 3 \]

- **The variable(s)**
  
  \[ a^2b = a \times a \times b \]

Every algebraic term has a coefficient. But if the coefficient is “1” we usually do not write it.

Some algebraic terms don't have a variable part. A plain number with no variables is called a constant term.

**Like terms**

When the variable part of two or more terms matches exactly, they are called like terms.

Like terms can be added together to simplify your algebraic expression.

- In football: 1 lineman + 2 linemen = 3 linemen
- In algebra: \( 3a + 4a = 7a \)

Unlike terms must be left separate.

- In football: 3 linemen + 2 kickers do NOT make 5 "lickermen."
- In algebra: \( 3a + 4ab \) cannot be written any simpler—it is just \( 3a + 4ab \).

To help us recognize like terms, we usually write the variables in alphabetical order. If you find an expression where the variables are out of order, rewrite it the proper way and look for like terms.

Several terms may be added together to make a special type of algebraic expression called a polynomial. Most of your time in algebra class will be spent learning to work with polynomials.

**Vital Vocabulary**

Knowing the correct words will help you think clearly!

- **Sum** = the answer when you add.
- **Product** = the answer when you multiply.
- **Quotient** = the answer when you divide. Remember: In algebra, you divide by making a fraction.
- **Simplify** = rewrite an expression as simply as possible. Be sure to combine all like terms and to put all fractions in lowest terms (simplest form).