

Term

Part of an expression
separated by an addition
or subtraction sign

Like terms

Terms that have the
same variable

Simplify

Combine like terms

In algebra, you need to add, subtract, multiply, and divide using variables to stand for numbers.

In algebra $3n$ means $n + n + n$.
 $2n$ means $n + n$.
 n means $1n$ (the 1 is not written).

$3n$ and $2n$ and n are all called **terms**. $3n + 2n$ is an example of an algebraic expression that includes **like terms**.

To **simplify** an algebraic expression, combine the like terms.

EXAMPLE 1 $3n + 2n$

Combine the like terms, $3n$ and $2n$.

$3n + 2n$ means the same as

$$\begin{array}{rccccccc} n & + & n & + & n & + & n & + & n & = & 5n \\ \underbrace{\hspace{1.5cm}} & & \underbrace{\hspace{1.5cm}} & & & & & & & & \\ 3n & + & 2n & = & 5n \end{array}$$

EXAMPLE 2

$$3x - 15 - 10x$$

Combine the like terms by subtracting the x 's:

$$3x - 10x \text{ (Think } 3 - 10 = -7\text{)}$$

$$3x - 10x = -7x$$

Since you cannot combine -15 with $-7x$, you are finished.

$$\text{The simplified answer: } 3x - 15 - 10x = -7x - 15$$

Exercise A Simplify each expression.

1. $m + m$

3. $v + v + v$

5. $c + c + c + c$

2. $s + s + s + s$

4. $b + b + b$