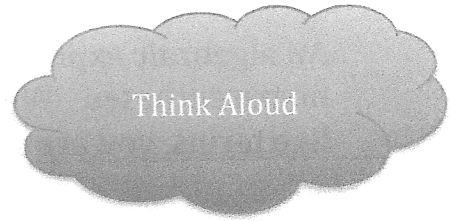


Review: How to Simplify Algebraic Expressions



When addition or subtraction signs separate **an algebraic expression** into parts, each part is called a **term**.

Like terms are terms that contain the same variables, such as $2n$ and $-5n$ or $6xy$ and $4xy$.

A term without a variable is called a **constant**.

When a **term** is made up of a number and a variable, the number, which is always listed first, is called the **coefficient**.

1) Identify the like terms in the following expressions:

a) $3x + 4y + 4x$ _____

b) $5x + 3 + 7x + 4$ _____

c) $-4x + 2y + 3y + 2x$ _____

2) Identify the terms, like terms, coefficients, and constants in the expression below:

$6x - 2y + x - 5$ terms _____

like terms _____

constants _____

coefficients _____

An algebraic expression is in **simplest form** if it has no like terms and no parentheses. When you use the Distributive Property to combine like terms, you are **simplifying the expression**.

3) **Simplify each expression:**

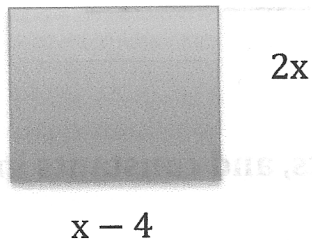
a) $5n + 2 - n - 6$ _____

b) $6y - 3(x - 2y)$ _____

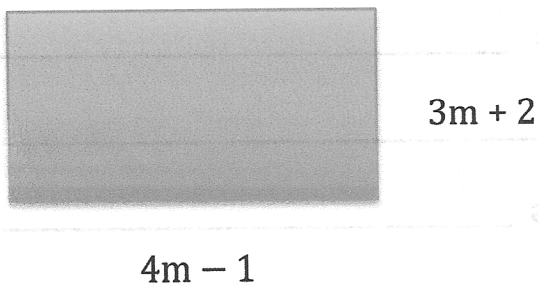
c) $2(x - y) - (x + y)$ _____

Geometry Connection:

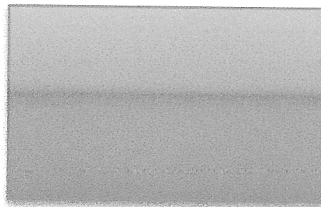
Write an expression in simplest form for the **perimeter** of each rectangle:



Solve for the **perimeter** of each rectangle when $x = 3$ and when $m = 2$.



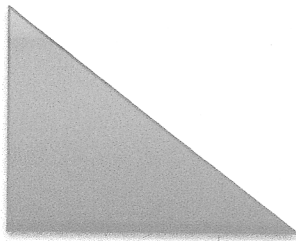
Write an expression in simplest form for the **area** of each shape:



$$5n - 1$$

$$2n$$

Solve for the **area** of each figure when $n = 3$ for the rectangle and when $a = 1.5$



$$3a$$

$$2a + 9$$

The area of the rectangle below is $15x - 25y$. If the width of this rectangle is 5 inches, make an expression to show the length.

