Key

Combining Like Terms

A term is a constant, variable, or product in an expression.

For example: In $6x^2 + 5x + 2$, there are 3 terms. They are $6x^2$, $5x$, and 2.

Polynomials are expressions made with constants, variables, and exponents, which are combined using addition, subtraction, and multiplication, but not division.

Ex. $6x^2 + 5x + 3$ has 3 terms and is called a trinomial.

Ex. $5x$ is a single term so it has one term and is called a monomial.

Ex. $3x - 8$ is called a binomial because there are two terms.

Polynomials	Not Polynomials	... but these ARE allowed...
3	$1/x$	$\sqrt{2}$
$3xy + 2x + 5$	$\sqrt{x}$	$x/2$
$5xy^2 - 3x + 5y^3 - 3$	$2/(x+2)$	$3x/8$
$4x + 5$	$3x^{-5}$	π

Terms are called "<u>like terms</u>" when they have the *same variable* to the *same power*. Note: 3x can combine with 7x to make 10x because they are *<u>like</u>* terms.

Coefficients are the numbers in front of the variable. To combine like terms, we just add the coefficients. For example, to simplify 3x + 4x + 5x, we add 3 + 4 + 5... so the simplified expression is 12x.

<u>Complete the activity below</u>: Circle all the terms below that match ***3x***. Underline all the terms that would combine with ***6xy***. Draw a triangle around all the terms that match with ***-7***. Finally highlight all the terms that would combine with ***$9x^2$***.