Polynomials 1

Terms to Know

algebra - a branch of math that uses symbols to represent unknown #s or quantities

term - a number or a variable, or the product of numbers and variables

polynomial - an algebraic expression made up of terms connected by the operations of addition or subtraction

monomial - a polynomial with 1 term

binomial - a polynomial with 2 terms

trinomial - a polynomial with 3 terms

degree of a term - the sum of the exponents on the variables in a single term

degree of a polynomial - the degree of the highest-degree terms in a polynomial

like terms - terms that have the same variable(s) raised to the same exponent(s)

distributive property - the rule that states a(b+c) = ab + ac

Example 1

Complete the chart:

Expression	# of Terms	Monomial? Binomial? Trinomial? Polynomial?	Degree of Each Term	Degree of the Polynomial
5				
$-6x$				
$2x-3$				
$-4x^2+y$				
$2y^2-4y+6$				
$-5w^2+2wy-y^2+8$				

Example 2

Simplify each of the following:

a) $5x-3x^2+2x-x^2$

b) $2x-6-2x+1$

c) $k-2k^2+3+5k^2-3k-4$

Example 3 - Adding Polynomials

Add each of the following:

a) $(3x-4)+(2x+5)$

b) $(3t^2-5t)+(-t^2+2t-1)$

Example 4 - Subtracting Polynomials

Subtract each of the following:

a) $(3x-4)-(2x+3)$

b) $(2x-3)-(-x+2)$

c) $(5x^2-x+7)-(3x^2-9x+4)$

Complete the following: **Practice - Polynomials 1**
Check your solutions using the key provided.

Outcomes:

PR5 - Demonstrate an understanding of polynomials
PR6 - Adding and subtracting polynomials