

Algebra 1

Add, Subtract and Multiply Polynomials

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Monomial
degree
Polynomial
leading coefficient
Binomial
Trinomial
FOIL
Like Terms

Overview

Monomial a number, variable, or the product of a number and variable(s) with whole number exponents

10 5x $\frac{1}{3}xy^2$ -2.5 z³

12 + x 3/a 3^x x⁻²

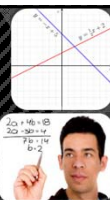
No'mi'al n. 1.(Alg.) A name or term

Add, Subtract and Multiply Polynomials

degree the greatest degree of the terms of the polynomial

$$3x^2 + x^5$$

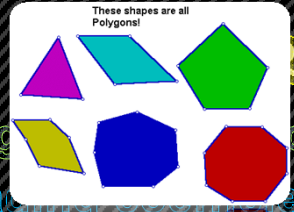
Degree: 5



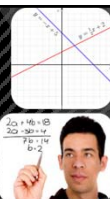
Add, Subtract and Multiply Polynomials

Polynomial
a monomial or the sum of monomials

These shapes are all Polygons!

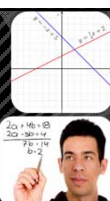


degree
leading coefficient
constant term



Add, Subtract and Multiply Polynomials

Binomial

$$3x + 6$$


Trinomial

$$x^2 - 3x + 6$$


Add, Subtract and Multiply Polynomials

$(3x^2 + 2x + 3) + (2x^2 + 4x - 5)$
 $(5x^2 + 6x - 2)$

$(2a^3 - 3a^2 + 4) - (a^3 + 2a^2 - 3a - 3)$
 $2a^3 - 3a^2 + 4 - a^3 - 2a^2 + 3a + 3$
 $a^3 - 5a^2 + 3a + 7$

Add, Subtract and Multiply Polynomials

$(5x^2 - 2x + 6) - (3x^2 + 5)$

You Try It!

$= 2x^2 - 2x + 1$
 $(5x^2 - 2x + 6) - (3x^2 + 5)$
 $5x^2 - 2x + 6 - 3x^2 - 5$

You Try It!

$3x(2x^2 + x - 4)$
 $= 6x^3 + 3x^2 - 12x$

$(x + 2)(2x + 3)$
 $= 2x^2 + 7x + 6$

Combine Like Terms

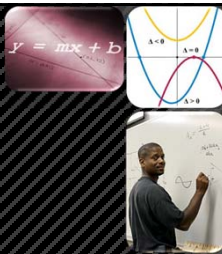
Add, Subtract and Multiply Polynomials

First
 Outside
 Inside
 Last

$(x + 2)(2x + 3)$
 $= 2x^2 + 3x + 4x + 6$

Add, Subtract and Multiply Polynomials

$(3x + 5)(x - 6)$

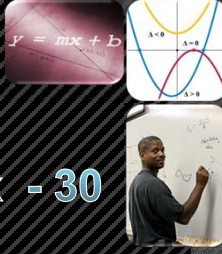


You Try It

$(3x + 5)(x - 6)$

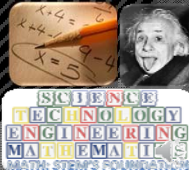
$= 3x^2 - 18x + 5x - 30$

$= 3x^2 - 13x - 30$



You Try!

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