

Algebra I

Notes 11.3, Part 3 Multiplying Polynomials using the Distributive Property

Objective: Multiply polynomials using the Distributive Property.

To multiply a monomial by a polynomial, multiply the monomial term by each term of the polynomial.

Examples:

$6(x + 1)$	$3(x^2 + x - 4)$	$2(3a^2 + 5a - 1)$	$-3(-x^2 - 2x)$
_____	_____	_____	_____
$x(x^2 + 7x - 1)$	$a^2(a^2 + a + 9)$	$-2b(b^2 + b - 4)$	$-3x^2(x - 1)$
_____	_____	_____	_____

To multiply a binomial by a binomial, you must multiply each term of the first binomial by each term of the second binomial. There will be ___ products.

$$(a + b)(c + d) = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

There is a method called “FOIL” to help you organize your products when multiplying two binomials.

The terms in position “a” and “c” are called _____.

The terms in position “a” and “d” are called _____.

The terms in position “b” and “c” are called _____.

The terms in position “b” and “d” are called _____.

The “FOIL” name is a way to remember to multiply the:

F _____ O _____ I _____ L _____

when multiplying two binomials.

