

Name: _____

Date: _____

7.2 Multiplying Polynomials

Essential Question: _____

EXAMPLE 1

Multiplying Binomials Using the Distributive Property

Find (a) $(x + 2)(x + 5)$ and (b) $(x + 3)(x - 4)$.

EXAMPLE 2

Multiplying Binomials Using a Table

Find $(2x - 3)(x + 5)$.


Using the FOIL Method


The FOIL Method is a _____ for _____ two _____.

Core Concept


FOIL Method

To multiply two binomials using the FOIL Method, find the sum of the products of the

First terms, $(x + 1)(x + 2)$  $x(x) = x^2$

Outer terms, $(x + 1)(x + 2)$  $x(2) = 2x$

Inner terms, and $(x + 1)(x + 2)$  $1(x) = x$

Last terms. $(x + 1)(x + 2)$  $1(2) = 2$

$$(x + 1)(x + 2) = x^2 + 2x + x + 2 = x^2 + 3x + 2$$

EXAMPLE 3**Multiplying Binomials Using the FOIL Method**

Find each product.

a. $(x - 3)(x - 6)$

b. $(2x + 1)(3x - 5)$

Multiplying Binomials and Trinomials**EXAMPLE 4****Multiplying a Binomial and a Trinomial**

Find $(x + 5)(x^2 - 3x - 2)$.