

Expanding Binomials

A binomial is a polynomial with two terms.

Binomials can be simplified using the following methods:

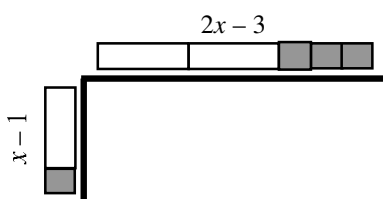
Expand $(2x-3)(x-1)$.

RULE

Every term in one binomial **MUST** be multiplied by every term in the other binomial.

1. Algebra Tiles/Area Model

- draw a multiplication frame
- use algebra tiles to model each binomial
- fill the rectangle using algebra tiles
- state the answer



2. Chart

- draw a chart
- place each term from one binomial at the top of each column and each term from the other binomial at the beginning of each row
- multiply columns and rows
- state the answer

	$2x$	-3
x		
-1		

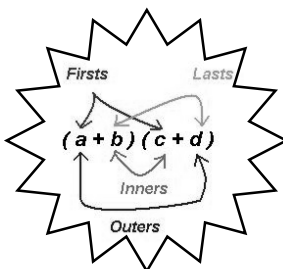
3. Expand Using The Distributive Property

$$(2x-3)(x-1)=$$



4. Multiplication Pattern: FOIL

$$(2x-3)(x-1)=$$



Example 1

Expand each of the following.

a. $(5x-2)(x-3)$

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

c. $(6x+1)^2$

d. $(x-1)^2$