

Algebra 1 8.3

Multiply binomials using EWE

Multiply polynomials using EWE

distributive property

→ EWE

~~(EOL = FAIL)~~

x^2

quadratic

standard form

X-factor

whiteboards

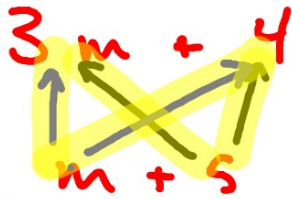
binomial • binomial

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

whiteboards

Guided Practice

1A. $(3m + 4)(m + 5)$



$$15m + 20$$

$$3m^2 + 4m$$

$$3m^2 + 19m + 20$$

1B. $(5y - 2)(y + 8)$

$$\begin{array}{r} 5y - 2 \\ y + 8 \\ \hline 5y^2 \quad 40y \quad -16 \\ \quad -2y \\ \hline 5y^2 + 38y + 16 \end{array}$$

Standard form:

FAIL method: Use EWE

Example 2 ~~FOIL Method~~

Find each product.

a. $(2y - 7)(3y + 5)$

$$\begin{array}{r} 2y - 7 \\ 3y + 5 \\ \hline 6y^2 - 21y \\ 10y - 35 \\ \hline 6y^2 - 11y - 35 \end{array}$$

b. $(4a - 5)(2a - 9)$

$$8a^2 - 46a + 45$$

Guided Practice

2A. $(x + 3)(x - 4)$

$$x^2 - x - 12$$

2B. $(4b - 5)(3b + 2)$

$$12b^2 - 7b - 10$$
$$12B^2 - 7B - 10$$

2C. $(2y - 5)(y - 6)$

2D. $(5a + 2)(3a - 4)$

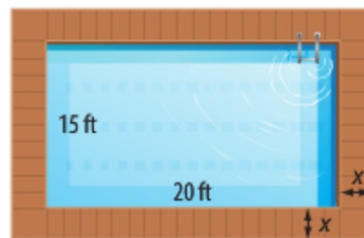
FAIL

Real-World Example 3 FOIL Method



SWIMMING POOL A contractor is building a deck around a rectangular swimming pool. The deck is x feet from every side of the pool. Write an expression for the total area of the pool and deck.

Understand We need to find an expression for the total area of the pool and deck.



Example 4 The Distributive Property

Find each product.

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

b. $(2y^2 + 3y - 1)(3y^2 - 5y + 2)$

Guided Practice

4A. $(3x - 5)(2x^2 + 7x - 8)$

4B. $(m^2 + 2m - 3)(4m^2 - 7m + 5)$