Algebra 1 8.3

Multiply binomials using EWE

Multiply polynomials using EWE

distributive property

EWE

(FOIL = FAIL)

quadratic

standard form

X-factor

triangle puzzle (if time)

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

ewe

$x+3$

$x-5$

$-5x \quad -15$

x^2+3x

$x^2-2x-15$

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

$5y - 2$

$y + 8$

$40y - 16$

$5y^2 - 2y$

$5y^2 + 38y - 16$

$y + 8$

$5y - 2$

$-2y - 16$

$5y^2 + 40y$

35

-23

105

70

Whiteboards

ewe

Example 2 FOIL Method

Find each product.

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

$\cdot 3y \cdot 2y$

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

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

GuidedPractice

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

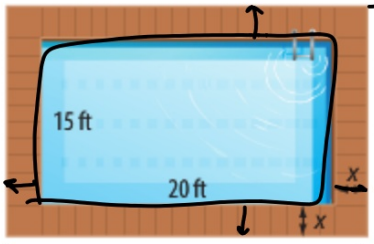
2B. $(4b - 5)(3b + 2)$

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

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

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.



$15+2x$

$20+2x$

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

$(20+2x)(15+2x)$

$($ $)-$

GuidedPractice

3. If the pool is 25 feet long and 20 feet wide, find the area of the pool and deck.

ewe

Example 4 The Distributive Property

Find each product.

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

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

$$10x^2 - 15x - 25$$
$$12x^3 - 18x^2 - 30x$$

$$12x^3 - 8x^2 - 45x - 25$$

Matching activity
Triangle puzzle

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

GuidedPractice

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

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

WB 8.3 skills
~~all~~ 5 (5 pts)
all (6 pts)