

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)

Whiteboards

Example 2 FOIL Method

Find each product.

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

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

Guided Practice

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

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

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

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

Example 4 The Distributive Property

Find each product.

a. $(6x + 5)\underbrace{(2x^2 - 3x - 5)}$

- ✓ Matching activity
- ✗ Triangle puzzle

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

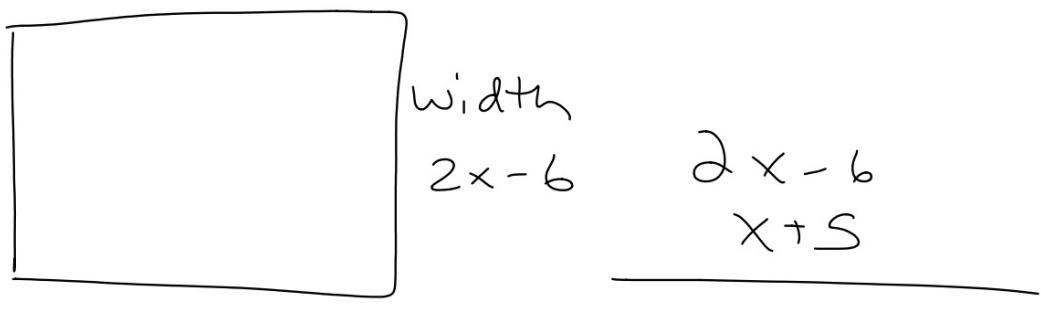
$$\begin{array}{r} 2y^2 + 3y - 1 \\ \underline{-} 3y^2 - 5y + 2 \\ \hline 4y^2 + 6y - 2 \\ -10y^3 - 15y^2 + 5y \\ \hline 6y^4 + 9y^3 - 3y^2 \\ \hline 6y^4 - 1y^3 - 14y^2 + 11y - 2 \end{array}$$

The diagram shows the multiplication of two polynomials. The top polynomial is $2y^2 + 3y - 1$ and the bottom polynomial is $3y^2 - 5y + 2$. The result of the multiplication is $6y^4 - 1y^3 - 14y^2 + 11y - 2$. Handwritten annotations in purple and red highlight specific terms: purple arrows point to the $2y^2$ term in the first polynomial and the $3y^2$ term in the second polynomial; red arrows point to the -1 term in the first polynomial and the $+2$ term in the second polynomial. The intermediate steps show the distribution of each term from the first polynomial into the second, with some terms crossed out.

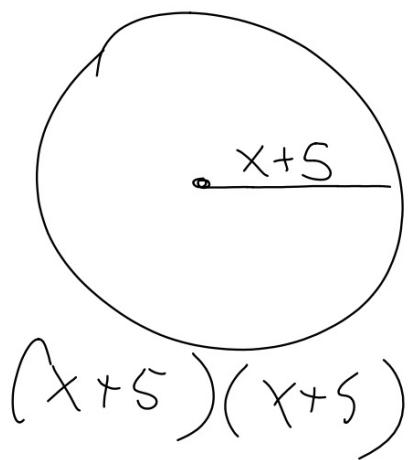
Guided Practice

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

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



length
 $(x + 5)$



Gem A

$$\begin{aligned}
 A &= \pi r^2 \\
 &= \pi (x+s)^2 \\
 &= \pi (x^2 + 10x + 25) \\
 &= \pi \cdot x^2 + 10\pi \cdot x + 25\pi
 \end{aligned}$$

$$\frac{x+s}{x} \frac{x+s}{x} = \frac{Sx+25}{Sx}$$