

Algebra 1

Lesson 9.2B
Multiply Polynomials

Warm-Up

Find the sum or difference.

(a) $(2x^3 + 4x - 8) + (x^2 - 8x + 3)$

(b) $(3x^3 + 5x^2 - 6x) - (2x^3 - 2x + 9)$

(c) $(x^2 - 5x + 8) - (3x^2 - 2)$

Find the product.

(d) $3a(2a^2 - 5a + 7)$

(e) $(y + 5)(y - 3)$

(f) $(2z + 3)(5z - 1)$

Example 1. Multiply a Binomial and a Trinomial

(a) $(x + 2)(x^2 + 2x + 1)$

(b) $(2x^2 + 3x + 1)(x + 5)$

(c) $(x - 3)(3x^2 + 6x - 4)$

(d) $(4x^2 - 3x + 2)(2x - 5)$

Example 2. Simplifying Using Multiple Steps

Simplify each expression being careful to follow the order of operations and combine all like terms for the final answer.

(a) $2x(x+1) + (x+5)(x-3)$

(b) $(2y+1)(y-5) - (y+6)(y-4)$

(c) $x^2(2x+3) - (2x+4)(x-4)$

(d) $-3d(d+8) + (2d-1)(2d+7)$

Try It!

(a) $2z(z+2) + (z+3)(z+5)$

(b) $4x(x+5) - (x+2)(x-3)$

Assignment

New: Pgs. 565 - 566 #20-25, 33-37, 42, 50

Review:

Find the sum or difference.

1. $(6x+4) + (x+5)$

2. $(2x^2 + 3x - 1) + (4x^2 - 3x + 5)$

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

4. $(6x^3 + 2x - 8) - (4x^2 + 4x - 12)$

