

Example 1

Multiplying Two Binomials

Expand and simplify.

a) $(x - 4)(x + 2)$

b) $(8 - b)(3 - b)$



SOLUTION

Example 1

Multiplying Two Binomials with Positive Terms

Expand: $(3d + 4)(4d + 2)$



SOLUTION

Example 3**Multiplying Two Binomials with Negative Coefficients**

Expand and simplify: $(-2g + 8)(7 - 3g)$

**SOLUTION**

The distributive property can be used to perform any polynomial multiplication. Each term of one polynomial must be multiplied by each term of the other polynomial.

Example 1**Using the Distributive Property to Multiply Two Polynomials**

Expand and simplify.

a) $(2h + 5)(h^2 + 3h - 4)$ b) $(-3f^2 + 3f - 2)(4f^2 - f - 6)$

**SOLUTION**

Example 2**Multiplying Polynomials in More than One Variable**

Expand and simplify.

a) $(2r + 5t)^2$

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

**SOLUTION****Example 3****Simplifying Sums and Differences of Polynomial Products**

Expand and simplify.

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

b) $(3x + y - 1)(2x - 4) - (3x + 2y)^2$

**SOLUTION**