

8-2

Practice

Form G

What is the product of $2x(3x + 1)$?

$$6x^2 + 2x$$

$$2(3x + 1)$$

$$6x + 2$$

Example 1: Multiplying a Monomial and a Trinomial.

What is a simpler form of $-x^3(9x^4 - 2x^3 + 7)$?

$$-9x^7 + 2x^6 - 7x^3$$

Example 2: Finding the Greatest Common Factor (GCF)

What is the GCF of the terms of $5x^3 + 25x^2 + 45x$?

$$5(x^3 + 5x^2 + 9x)$$

$$5x(x^2 + 5x + 9)$$

Example 3: Factoring Out a Monomial

What is the factored form of $4x^2 - 24x^3 + 8x$?

$$4\left(\frac{x^2}{x} - 6\frac{x^3}{x} + 2\frac{x}{x}\right)$$

$$4x(x - 6x^2 + 2) = 4x(-6x^2 + x + 2)$$