Polynomial Operations

1. Perform the indicated operation to write each polynomial in standard form.

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

b) $\dfrac{x^3 - x^2 - 5x - 3}{x - 3}$

c) $(x^2 + 7x - 12)(x^2 - 9x + 1)$

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

e) $\dfrac{x^3 - 2x^2 - 5x + 6}{x + 2}$

f) $(x^3 + 2x^2 - 3x - 1) + (4 - x - x^3)$

Polynomial Operations

1. Perform the indicated operation to write each polynomial in standard form.

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

$2x^4 - 7x^3 + 9x^2 - 8x + 4$

b) $\dfrac{x^3 - x^2 - 5x - 3}{x - 3}$

$x^2 + 2x + 1$

c) $(x^2 + 7x - 12)(x^2 - 9x + 1)$

$x^4 - 2x^3 - 74x^2 + 115x - 12$

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

$x^5 - 4x^4 + 4x^3 - 8x^2 + 32x - 32$

e) $\dfrac{x^3 - 2x^2 - 5x + 6}{x + 2}$

$x^2 - 4x + 3$

f) $(x^3 + 2x^2 - 3x - 1) + (4 - x - x^3)$

$2x^2 - 4x + 3$