

## Multiplying and Dividing Polynomials Review

In Mathematics 9 we learned how to multiply and divide a polynomial by a monomial.

**Example:** Find each product.

$$\begin{array}{l} \text{a) } 3e(4e-2) \\ = 12e^2 - 6e \end{array}$$

$$\begin{array}{l} \text{b) } -6x^3(-7x^3+x-5) \\ = 42x^6 - 6x^4 + 30x^3 \end{array}$$

$$\begin{array}{l} \text{c) } -5m^2n(8-3m+m^6) \\ = -40m^2n + 15m^3n - 5m^8n \end{array}$$

$$\begin{array}{l} \text{d) } 8ab^4(3a^3-ab+7b^2) \\ = 24a^4b^4 - 8a^2b^5 + 56ab^6 \end{array}$$

**Example:** Find each quotient.

$$\begin{array}{l} \text{a) } \frac{9b^2+6b}{3b} \\ = 9b+2 \end{array}$$

$$\begin{array}{l} \text{b) } \frac{-14c^5+21c^3+35c^2}{-7c^2} \\ = 2c^3 - 3c - 5 \end{array}$$

$$\begin{array}{l} \text{g) } (24x^4-12x^2) \div (-4x^2) \\ = -6x^2+3 \end{array}$$

$$\begin{array}{l} \text{h) } \frac{-36x^6y^2+18x^2y^4}{-3xy^2} \\ = 12x^5 - 6xy^4 \end{array}$$