Multiplying and Dividing Polynomials Review

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

Example: Find each product.

a) $3e(4e-2)$

$=12e^2-6e$

b) $-6x^3(-7x^3+x-5)$

$=42x^6-6x^4+30x^3$

c) $-5m^2n(8-3m+m^6)$

$=-40m^2n+15m^3n-5m^8n$

d) $8ab^4(3a^3-ab+7b^2)$

$=24a^4b^4-8a^2b^5+56ab^6$

Example: Find each quotient.

a) $\frac{9b^2+6b}{3b}$

$=9b+2$

b) $\frac{-14c^5+21c^3+35c^2}{-7c^2}$

$=2c^3-3c-5$

g) $(24x^4-12x^2)\div(-4x^2)$

$=-6x^2+3$

h) $\frac{-36x^6y^2+18x^2y^4}{-3xy^2}$

$=12x^5-6xy^4$