Name:

QUIZ 7 - MATH IB HL

1. (30%) Given polynomials: $A = 4x^2 - x^4 - 2x,$ $B = x^2 - x$

   a. (10%) How many terms (without simplifying) will be in the expansion of B^3 ? _____

   b. (20%) Perform the division and write:

   $$\frac{A}{B} =$$

2. (15%) Given polynomials: $A = 4x^3 + 4x^2 - 7x + 2$ $B = x + 2$

   Is B a factor of A? Explain.

3. (15%) Find the remainder in the following division: $\dfrac{-3x^5 - 13x^{1999} + 2}{x + 1}$

4. (40%) Given the equation $2x^3 + 2x^2 - 4x - 4 = 0$

    a. (5%) Show that $x = -1$ is a solution of this equation.

    b. (5%) Write down the factor associated with this solution.

    c. (20%) Find the other solutions of the equation.

    d. (10%) Write down the <u>completely factorized equation</u>.