Name: _____ **Algebra II**
Date: **Quiz 2**

Problem 1. Write $(x-1)^2(x+1)^2$ in standard form. That is, as a polynomial in descending powers of x. (Your answer should have the form $a_n x^n + a_{n-1}x^{n-1} + \cdots + a_2 x^2 + a_1 x + a_0$. *Hint*: There's an easy way to do this, and a hard way.)

Problem 2. Factor $25x^2 - 36y^2$ completely.

Problem 3. Factor $16z^4 - 81w^4$ completely.

Problem 4. Factor $y^3 + y^2 - 4y - 4$ completely.

Problem 5. Factor $10x^2 + 11x - 6$ completely.

Problem 6. Factor $5x^3 + 40y^3$ completely.

Problem 7. Let $f(x) = \frac{1}{x^2-2x-15}$. Write the domain of f in *interval notation*.