

Names: _____

College Algebra Activity #4: Polynomials 2

1. Find the list of candidate roots of the polynomial

$$p(x) = 2x^3 + 2x^2 + 4x + 4$$

given by the Rational Root Theorem. **Do not factor.**

2. Factor the following polynomial.

$$p(x) = 4x^4 + 12x^3 + 3x^2 - 13x - 6$$

3. Factor the following polynomial.

$$p(x) = 6x^5 - 23x^4 + 24x^3 + x^2 - 12x + 4$$

4. Factor the following polynomial.

$$p(x) = 36x^7 - 216x^6 + 413x^5 - 191x^4 - 205x^3 + 175x^2 + 8x - 20$$

Hint: Draw a graph of p using a computer or calculator.