

Names: \_\_\_\_\_

**College Algebra    Activity #4: Polynomials 2**

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1. Find the list of candidate roots of the polynomial

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

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

2. Factor the following polynomial.

$$p(x) = 4x^4 - 15x^2 - 5x + 6$$

3. Factor the following polynomial.

$$p(x) = 6x^5 - 31x^4 + 60x^3 - 55x^2 + 24x - 4$$

4. Factor the following polynomial.

$$p(x) = 36x^7 - 228x^6 + 487x^5 - 345x^4 - 91x^3 + 173x^2 - 12x - 20$$

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