Activity #10: The Rational Root Theorem   **College Algebra**

1. Find the list of candidate roots of the polynomial

$$p(x) = 3x^3 + 3x^2 - 5x + 6$$

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

2. Find the list of candidate roots of the polynomial

$$p(x) = 5x^3 + 4x^2 + 6x + 6$$

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

3. Factor the following polynomial.
$$p(x) = 4x^4 - 15x^2 + 5x + 6$$

4. Factor the following polynomial.
$$p(x) = 4x^4 - 8x^3 - 7x^2 + 11x + 6$$

5. Factor the following polynomial.
$$p(x) = 6x^5 - 23x^4 + 24x^3 + x^2 - 12x + 4$$