

This is Due Friday, October 19th at the beginning of class.

1. Find all *real* zeros of the polynomial and factor it over the reals. This involves an irreducible quadratic factor.

Each time you find a zero, say $x = c$, split off a factor of $x - c$ and from that point on, work with the depressed polynomial.

$$x^4 - 4x^3 - 5x^2 + 38x - 30$$

2. Using the work from Page 1, finish splitting the polynomial into *linear* factors, by finding the remaining nonreal zeros, and splitting off the respective factors.

3. Sketch a rough graph of the polynomial function, from the information you have available.