1. Find all zeros of \( f(x) = 3x(x^2 - 3)(x^2 + 2x + 2) \).

2. Determine if \( x_0 = -1 \) is a zero for \( f(x) = x^3 + 2x^2 - x - 2 \).

3. Form a polynomial which has the following zeros and degree: zeros: 2, 3, -1; degree: 4.

4. Given \( f(x) = -2x^3 - 4x^2 + 3x \), find the zeros, \( x \)-intercepts and describe its end behavior.

5. Sketch the graph of \( f(x) = 2(x - 1)^2(x + 2) \) including all intercepts and end behavior.

Extra Credit:
1. Construct a function who has zeros: -1, 1, 2 and end behavior such that \( f(x) \to \infty \) as \( x \to \pm \infty \).

2. Find the zeros of \( f(x) = 2x^3 - x^2 - 7x + 6 \). Hint: \( x = 1 \) is a zero. Do not use calculators.