Secondary Math III   Name:_____
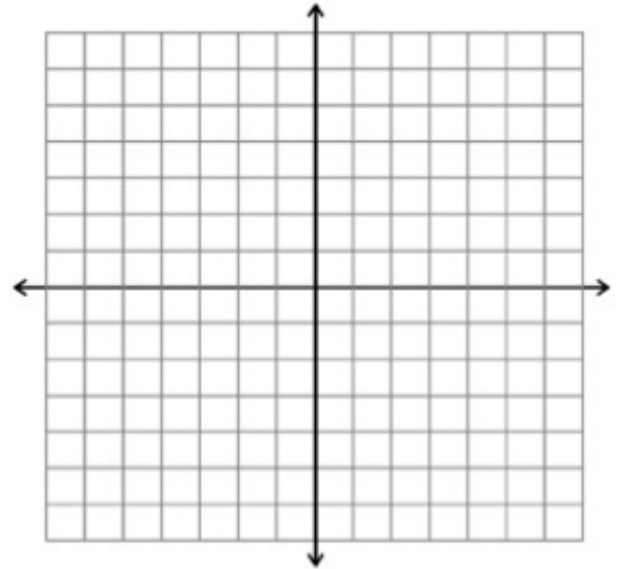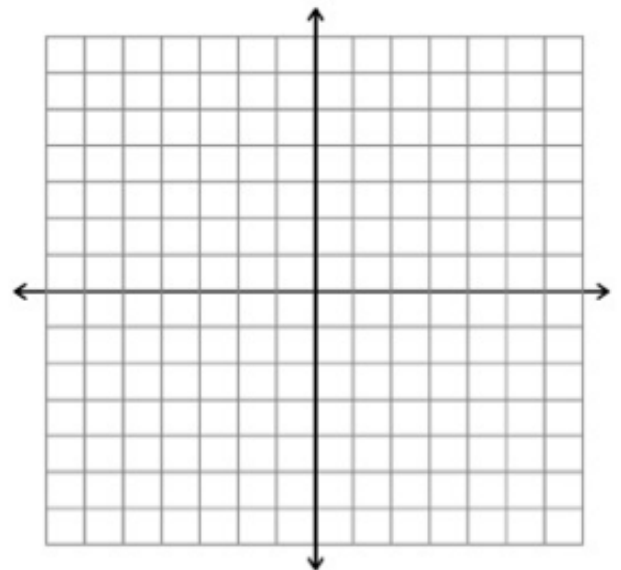HW 8-3 Graphing Polynomials from Standard Form   Period:_____

Given one zero, find the zeros of the polynomials, graph by hand, state the degree, whether it is positive or negative, and end behavior.

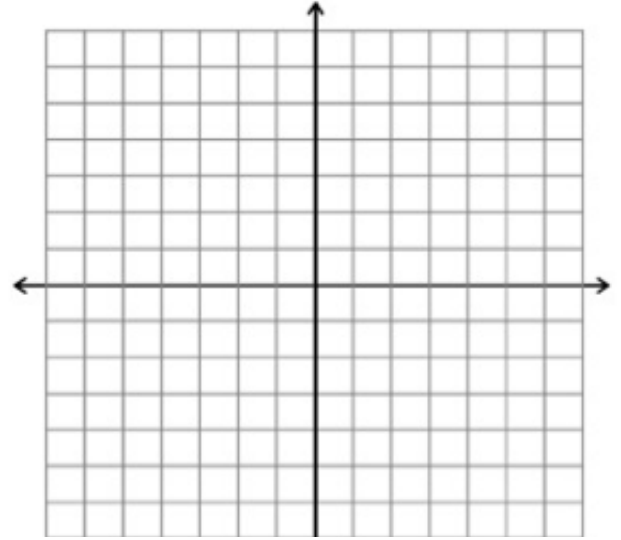1. Given 1 is a zero, $f(x) = x^3 - 8x^2 + 19x - 12$
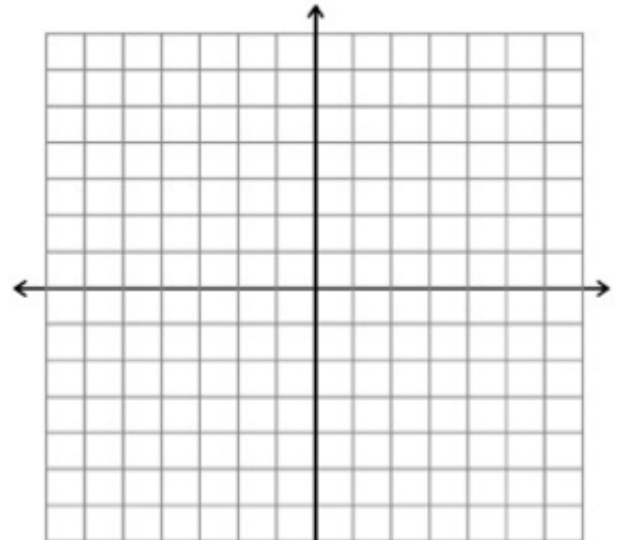
2. Given -4 is a zero, $f(x) = x^4 + 8x^3 + 20x^2 + 16x$

Using factoring, find the zeros of the polynomials, graph by hand, state the degree, whether it is positive or negative, and end behavior.
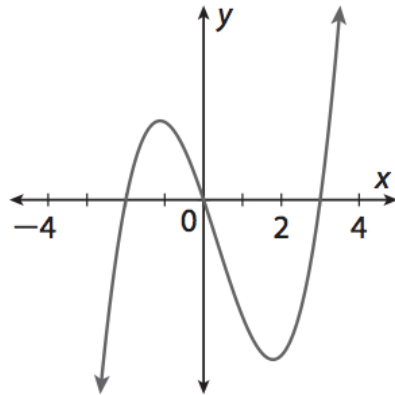
3. $f(x) = x^4 - 3x^3 - 10x^2$

4. $f(x) = -x^3 - 2x^2 + x + 2$

5. True or False: f(x) is the function of the graph below. Explain WHY or WHY NOT!

$f(x) = x^3 + x^2 - 6x$

Review
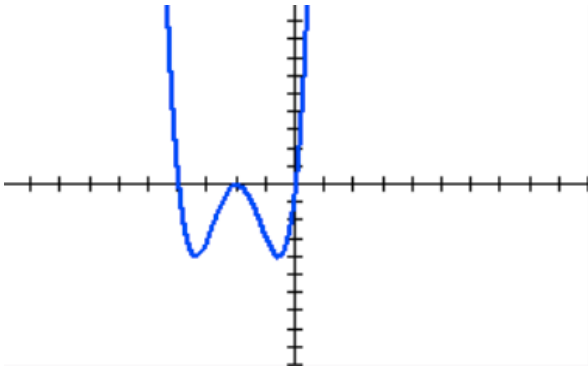
Factor the following

1. $27y^3 - 8$

2. $4z^2 - 4z + 1$

3. $2x^3 - 3x^2 + 2x - 3$

Selected Answers:

1. Factored Form: $f(x) = (x-1)(x-3)(x-4)$

2.

5. No