Offline HW 3

This offline assignment is **due** <mark>**Tuesday, February 1, 2018.**</mark> No extensions will be given.

The overall look of your paper will count toward your grade. Submissions on other paper will not be graded.
You must graph the function BY HAND!

This must be **YOUR work**; you are not allowed to ask tutors, friends or family members for help. You CAN however consult with your classmates. If you choose to do so, each of you must submit a separate paper and the name of the person(s) with whom you collaborated must be written on this paper. The papers that are **suspiciously identical will receive 0 credit**.

Sketch the graph of the function $f(x) = 2(x+1)(x-2)^3(x^2+4)$.

Fill in the table and determine the end behavior of f

Factor of f				
Real zero of f				
Multiplicity of the zero				
Graph crosses/ touches the x-axis				
Degree of each factor				

Degree of the polynomial function f(x) is : _____

End behavior: For x with large |x|, function f(x) behaves like y = _____ (write the power function, that the graph of f resembles for x with large |x|)
Illustrate the end behavior by drawing a picture.

Sketch the graph of f(x)