1. Section 4.7, number 33. Give a clear reason why you found a GLOBAL maximum.

2. Section 4.7, number 39. For full credit you must use the Global Second Derivative Test.

3. Sketch the graph of $\ln(1 + x^2)$. For full credit you must find and classify all critical points, and find all points of inflection.

4. Sketch the graphs of the functions (a)-(e) on the curve sketching worksheet. For full credit, you'll need to make number lines indicating the signs of the first and second derivatives, and make a graph that labels all critical points and points of inflection.