MA 123 Elementary Calculus and its Applications
Paper Homework 5-6
Due: 2 July 2008

Instructions

For each given function, find the coordinates of all

1. x-intercepts,
2. points of discontinuity,
3. points of inflection,
4. local minima, and
5. local maxima.

Then sketch the graph of the function for the interval given. (NOTE: This differs from what I said in class.) The graph must show all of the above points and correctly show where the function is positive, negative, increasing, and decreasing. Do not copy the graph produced by a calculator or computer - that will not help you learn nearly as much as doing it by hand. I recomend that you complete this assignment on your own paper. You do not need to turn in this page. If you wish, you can print your own graph paper from http://www.printfreegraphpaper.com.

1. $$f(x) = \frac{1}{256}(x+2)^3(x-5)^4 \text{ on } [-3, 7]$$
2. $$g(x) = \frac{(x-3)^2(x+1)^2(x+2)}{x^2-1} \text{ on } [-5, 5]$$