

NAME:

ID:

MAT 123: Introduction to Calculus, R-16
Fall 2005

Quiz 4

Dec. 8, 2005
duration: 20 min.

Question [20] Consider the function

$$f(x) = \frac{1}{3}x^3 - 4x^2 + 15x + 1.$$

Find **(a)** the critical points, **(b)** the local maxima/minima, **(c)** the intervals where the function is increasing/decreasing, **(d)** the intervals where the function is concave up/down.

N.B. You must **show all your work** to receive full credit. **CALCULATORS ARE NOT ALLOWED!**