"QUIZ" for Oct. 27, 2008

NAME: (print!) _____ **Section:** _____

E-MAIL ADDRESS: (print!) _____

1. Suppose that $f(x)$ is differentiable everywhere and we know that $f(2) = 1$ and $f'(x) \leq -2$ for all x.

a) What is the largest possible value for $f(4)$?

b) Show that $f(x)$ has a root in $[2, 4]$.

2. Find the critical points of $f(x) = 2x^3 - 9x^2 + 12x - 2$ and use the Second Derivative Test (if possible) to determine whether each corresponds to a local minimum or maximum.