Math 165: Honors Calculus I   Name:_____

Quiz 10   *Nov. 30, 1995*

1. A particle is constrained to move along a curve whose equation is $y = x^3 - 2x$. At what point on the curve are the x-coordinate and the y-coordinate changing at the same rate.

2. Find the extrema (both relative and absolute maxima and minima) of the function $f(x) = 3x^4 - 8x^3 + 6x^2 + 1$ on the interval $[-2, 2]$.

3. State the following theorems precisely.

   a) ROLLE'S THEOREM.

   b) MEAN VALUE THEOREM FOR DERIVATIVES.