Math 231 Spring 2003
Quiz 6 (3/18) Name: _____

This quiz is worth 10 points and you have 10 minutes to complete it. Show all work and circle your final answers.

Calculators are NOT allowed today.

1. (*4 pts*) The statement below is ***false***. Provide a counterexample (a graph will do).

If $f'_-(2)$ and $f'_+(2)$ both exist, then $f(x)$ is differentiable at $x = 2$.

2. (*6 pts*) Sketch a *neat* and *clearly labeled* graph of a function f such that:

- $f(2) = 1$.
- The instantaneous rate of change of f at $x = 2$ is zero.
- The average rate of change of f on $[1, 2]$ is 2.
- The average rate of change of f on $[2, 4]$ is 1.