Math 131 Spring, 2008
Quiz 4(b) Name: _____________________
Show your work in details and provide reasons to support your answers.

1. (3pts) The graph of $f(x)$ is given below.
   a. Sketch the secant line that passes through points on the graph of $f(x)$ where $x = -2.5$ and $x = 0$.
   b. Sketch the tangent line to the graph of $f(x)$ at points where $x = 2.5$.
   c. Estimate all $x$ values at which the slope of the tangent line to the curve $y = f(x)$ is 0.

![Graph of f(x)](image)

2. (5pts) Find the slope (by definition) and equation of the tangent line to the curve $y = x^2 - 3x$ at the point where $x = -2$.

3. (4pts) Find the slope (by definition) of the tangent line to the curve $y = \sqrt{x + 3}$ at the point where $x = 1$.