Math 105 - Quiz 4 - September 24, 2007

Instructions: Show all of your work and circle your final answers. Calculators are allowed, but notes and books are not.

1. (8 pts.) Suppose that $f(-3) = -1$, $f'(-3) = 0$, and $f''(-3) = 2$. Is $x = -3$ a local minimum of $f(x)$, a local maximum of $f(x)$, a terrace point of $f(x)$, or none of these? Explain.

2. (12 pts.) The graph below is the graph of $y = g'(x)$. (Note that it is NOT the graph of $y = g(x)$.)

(a) On what interval(s) is $g(x)$ increasing?

(b) On what interval(s) is $g'(x)$ increasing?

(c) On what interval(s) is $g(x)$ concave up?