Math 1710 Section 3
February 6, 2008
Quiz #2

Name:
You **must** show your work to receive full credit.

1. **From definition** find the derivative of $f(x) = \frac{1}{x+2}$.

2. Find the derivative of $g(x) = 3x^4 + 100x^2 - 12x + 211$.

3. Let $g(x) = x^3 - 3x^2 + 5$. Find all values of x such that the tangent line of g at x is horizontal.

4. Suppose that f and g are differentiable functions whose derivatives are known. Find the derivative of $\frac{f}{g}$. Yes, this problem is worth a quarter of the quiz grade and is merely asking you to recite the Quotient Rule for derivatives. Of course, everyone will get this problem correct because you've all memorized the rule.