Name: ____________________________
Math 165 quiz
Date: 10/3/2013
Section: _____

Instructions: This quiz is out of 10 points and you have 15 minutes to work on it. No calculators are allowed. Show all work; partial credit may be given but only if correct work and reasoning are shown and explained. Please write legibly and organize your work well!

1. [3 points] Evaluate the following derivatives:
   (a) \( f'(x) \) if \( f(x) = \cos(x) \).
   
   (b) \( y' \) if \( y = e^x \).
   
   (c) \( \frac{dy}{dt} \) if \( y = \ln(t) \).

2. [3 points] Use the chain rule to find \( \frac{d}{dx}[f(g(x))] \). Now find the derivative of \( \sin(x^2 + 2x - 8) \).
3. [4 points] Find the $dy/dx$ given the equation $xy + y^2x^2 = x$. 