## MATH 1270 Sec 005, 007 CALCULUS FOR THE BUSINESS WITH APPLICATIONS II QUIZ 1 $_{\rm January~19,~2011}$

Name (Last, First)\_\_\_\_

1. Find the derivative of the following function.

$$f(x) = 12(2x^4 + 5)^{3/2}$$

$$f'(x) = 12 \cdot \frac{3}{2} (2x^4 + 5)^{3/2 - 1} \cdot 8x^3$$
  
$$f'(x) = 144x^3 (2x^4 + 5)^{1/2}$$

2. Find the derivative of the following function.

$$f(x) = xe^x$$

 $f'(x) = xe^x + e^x$  (using the Product Rule).