# MATH 1270 Sec 005, 007 <br> CALCULUS FOR THE BUSINESS WITH APPLICATIONS II QUIZ 1 

January 19, 2011

Name (Last, First)

1. Find the derivative of the following function.

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

$$
\begin{aligned}
& f^{\prime}(x)=12 \cdot \frac{3}{2}\left(2 x^{4}+5\right)^{3 / 2-1} \cdot 8 x^{3} \\
& f^{\prime}(x)=144 x^{3}\left(2 x^{4}+5\right)^{1 / 2}
\end{aligned}
$$

2. Find the derivative of the following function.

$$
f(x)=x e^{x}
$$

$f^{\prime}(x)=x e^{x}+e^{x}$ (using the Product Rule).

