Math 221 - Quiz #1 Name _____

You must show all relevant work to receive full credit. The point value of each problem is shown in the left hand margin.

(5) 1. Differentiate the following functions:

(a) $f(x) = \ln(\cos(x))$

(b) $g(x) = \dfrac{1 - e^{-t}}{t}$

(5) 2. Find the antiderivatives:

(a) $\displaystyle\int \frac{dx}{x\ (\ln\ x)^2}$

(b) $\displaystyle\int \frac{e^{\frac{1}{t}}}{t^2}\ dt$