Quiz 8

MATH 140B

MSTB 124 NAME (2 POINTS):

Problem 1. (4 points) Calculate the derivative of $\int_{-x^2}^{\sqrt{ln\ x}} e^{t^2} dt$ for $x > 0$.

Problem 2. (4 points) Suppose f is a continuous real valued positive function on $[a, b]$ so that $\int_a^b f = \int_a^b \frac{1}{f}$. Show that there is an $x \in [a, b]$ such that $f(x) = 1$.