MATH 107H Quiz 1

Name:_____

PIN in any 4 digits:__

Score:

Instructions: You must show supporting work to receive full and partial credits. No text book, notes, formula sheets allowed.

1(3pts) Calculate the integral

$$\int_0^{\pi/4} \sec^2 x \, dx$$

using the Fundamental Theorem of Calculus.

2(3pts) Calculate the integral

$$\int_{0}^{e} (1+x^{-1})dx$$

using the Fundamental Theorem of Calculus.

3(4pts) Find the derivative of the function with respect to x:

$$\int_{1}^{(x+1)^2} \sin(\sqrt{t}) \, dt,$$

using the Fundamental Theorem of Calculus.