Name:_____   Score:_____

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

1(3pts) Use the substitution $y = \sqrt{e^x - 1}$ (or any of your choice) to find

$$\int \frac{1}{\sqrt{e^x - 1}}\, dx$$

2(3pts) Use the method of integration by parts to find

$$\int x \sec^2 x\, dx$$

3(4pts) Find the value of the definite integral

$$\int_0^\pi \sin^3 \frac{x}{2}\, dx$$

(... The End)