NAME:

Show ALL your work CAREFULLY.

(a) Use the method of substitution to find the following indefinite integral. Be sure to indicate the substitution you use.

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

(b) Use the method of substitution to evaluate the following definite integral. Be sure to indicate the substitution you use.

$$\int_0^\pi \frac{\cos x}{1 + \sin^2 x} \, dx$$