Name:_____   Score:_____

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

1(6pts) Determine whether the integral converges or diverges. Find the value of the integral if it converges.

(a) $\int_0^1 \frac{2}{\sqrt{1-x^2}} \, dx$

(b) $\int_0^\infty xe^{-2x} \, dx$

2(4pts) Use a comparison to determine whether the integral $\int_0^\infty \frac{x}{1+x^3} \, dx$ converges or diverges.

(... *The End*)