

Name:

September 15, 2016

MAC 2313.9722

Cyr

Quiz 3

You must show all work to receive full credit!!

Problem 1. (4 points) Evaluate the integral $\int_0^1 \left\langle \frac{1}{t+1}, \frac{1}{t^2+1}, \frac{t}{t^2+1} \right\rangle dt$.

Problem 2. (6 points) Find the length of the curve $\mathbf{r}(t) = \langle 2t^2 + 1, -1, t^3 \rangle$ over the interval $0 \leq t \leq 1$.