

Name:

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MAC 2313.6717

Cyr

Quiz 13

You must show all work to receive full credit!!

Problem 1. (5 points) Evaluate $\int_{\mathcal{C}} \mathbf{F} d\mathbf{r}$, where $\mathbf{F} = \langle \sin(y), x \cos(y) + \cos(z), -y \sin(z) \rangle$ and \mathcal{C} is parameterized by $\mathbf{r}(t) = \langle \pi \sin(t), t, 2t \rangle$ for $0 \leq t \leq \pi/2$.

Problem 2. (5 points) Set up (but do NOT evaluate) $\iint_{\mathcal{S}} xyz dS$, where \mathcal{S} is the cone parameterized by $\mathbf{r}(u, v) = \langle u \cos v, u \sin v, u \rangle$ for $0 \leq u \leq 1, 0 \leq v \leq \pi/2$.