

Math 225: Calculus III
Quiz 9 April 9/11, 1996

Name: _____
Section: _____

1. Let $\mathbf{F} = x^2y\mathbf{i} + y^2z\mathbf{j} + z^2x\mathbf{k}$. Compute $\text{div } \mathbf{F}$.

2. Let C be the curve defined by $\mathbf{r}(t) = t\mathbf{i} + \cos(t)\mathbf{j}$, $0 \leq t \leq \pi/2$. Compute the line integral $\int_C 2y\sqrt{1-y^2} ds$.