

**Math 225 : Quiz****Nov. 27, 1991**

Show your work and circle your final answer.

1. Let  $C$  be the curve parameterized by  $(t) = t \mathbf{i} + t^2 \mathbf{j}$ ,  $0 \leq t \leq 1$ . Calculate the line integral  $\int_C x \, ds$ .

2. Evaluate the line integral

$$\int_C y \, dx + x \, dy + z \, dz$$

where  $C$  is the curve parameterized by

$$(t) = e^t \mathbf{i} + e^{-t} \mathbf{j} + t \mathbf{k}, \quad 0 \leq t \leq 1$$