Quiz 10 (10mins, 20pts)

Please write down your name, SID, and solutions discernably.

Name: 
SID: 
Score: 

1. (10pts) Evaluate the integral by making an appropriate change of variables.

\[ \int\int_{R} xy \, dA \]

, where \( R \) is the square with vertices (0, 0), (1, 1), (2, 0), and (1, -1).
2. (10pts) Evaluate the line integral

\[ \int_C (x^2 + y^2 + z^2) \, ds \]

, where \( C \) : \( x = 3t, \ y = \cos 4t, \ z = \sin 4t, \ 0 \leq t \leq 2\pi \).