

1. First check the curlF.

$$\begin{matrix} i & j & k \\ \frac{D}{dx} & \frac{d}{dy} & \frac{d}{dz} \\ yz+2y+3z & xz+2x+4z & xy+3x+4y \end{matrix} = 0$$

Field is conservative

C is intersection of  $x+y+z=1$  and  $x^2+y^2=1$

Stokes Theorem states  $\text{Int}(\text{Int}(\text{curlF} \cdot dS))$

curlF is 0

$dS = \text{gradF}/\text{Magnitude of gradF}$

$\text{gradF} = \langle 0, 0, 0 \rangle$

Stokes Theorem does not work