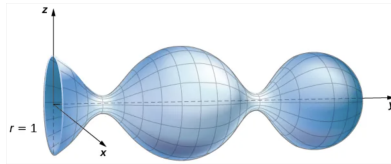# 25 11-25-2025

25.1 Section 6.7, Checkpoint 6.62

Use Stokes' theorem to calculat ethe surface integral $\iint_S \nabla \times \mathbf{F} \cdot d\mathbf{S}$, where $\mathbf{F}(x, y, z) = \langle z, x, y \rangle$ and S is the surface shown in the figure below. The boundary curve C is oriented clockwise when looking along the positive y-axis.

25.2 Section 6.7, Checkpoint 6.63

Use Stokes' theorem to calculate line integral $\int_C \mathbf{F} \cdot d\mathbf{r}$, where $\mathbf{F}(x, y, z) = \langle z, x, y \rangle$ and C is oriented clockwise and is the boundary of a triangle with vertices $(0, 0, 1), (3, 0, -2), (0, 1, 2)$