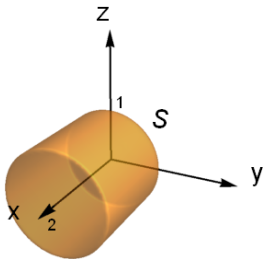


The Divergence Theorem



Question

If $\vec{F} = 2x\vec{i} + x\vec{j}$ and \vec{G} is a vector field on \mathbb{R}^3 , compute $\iint_S (\vec{F} + \text{curl}(\vec{G})) \cdot \vec{n} \, dS$ over the outward oriented closed cylinder shown.



- A. 2π
- B. 4π
- C. -2π
- D. There is not enough information.