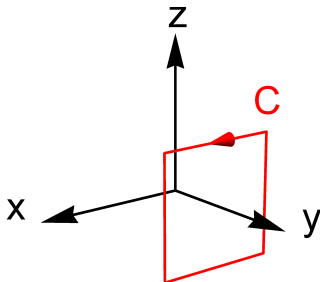


Stokes' Theorem



Question

Suppose \vec{F} is a vector field with $\text{curl}(\vec{F}) = \langle 1, 3, 2 \rangle$ on \mathbb{R}^3 . Compute $\int_C (\vec{F} + \nabla(y^2)) \cdot d\vec{r}$ where C is the square with side length 2 centered on the y -axis in the plane $y = 1$, oriented as shown.



- A. 2π
- B. 4
- C. 12
- D. 3
- E. There is not enough information.