

18.4: Green's Theorem

Calculus III

College of the Atlantic

Evaluate

$$\oint_{C_2} \vec{F} \cdot d\vec{r}, \quad (1)$$

where C_2 is a circle of radius 3 centered at $(4, 4)$ and

$$\vec{F} = (x^2 - 2y)\hat{i} - x\hat{j}. \quad (2)$$

Use Green's theorem. Trust me.