# 18.4: Green's Theorem 

Calculus III
College of the Atlantic

Evaluate

$$
\begin{equation*}
\oint_{C_{2}} \vec{F} \cdot d \vec{r}, \tag{1}
\end{equation*}
$$

where $C_{2}$ is a circle of radius 3 centered at $(4,4)$ and

$$
\begin{equation*}
\vec{F}=\left(x^{2}-2 y\right) \hat{i}-x \hat{j} . \tag{2}
\end{equation*}
$$

Use Green's theorem. Trust me.

