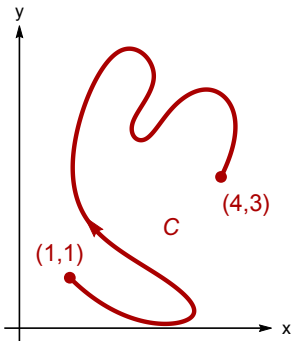# The Fundamental Theorem

Question

What is the value of $\int_C \vec{F} \cdot d\vec{r}$ where $\vec{F} = 2y\vec{i} + 2x\vec{j}$ and C is the oriented curve in the plane shown?

A. $3\vec{i} + 2\vec{j}$ B. 22   C. 23

D. 24   E. 25

F. There is not enough information.