

Name _____

Mathematics 206a: Multivariable Calculus
Winter Semester 2008

David Haines

Quiz #11

February 28

Let C be the path parametrized by $\vec{f}(t) = (t^3 - 1, t^3 + 1)$ starting at $t = 0$ and ending at $t = 1$.

Define the vector field $\mathbf{F} : \mathfrak{R}^2 \rightarrow \mathfrak{R}^2$ by the rule $\mathbf{F}(x, y) = (x^2, y^2)$.

Compute $\int_C \vec{F} \cdot d\vec{x}$.