

Quiz 6 Calc 3 11/09/2005

1. Compute $\int_C \mathbf{F} \cdot d\mathbf{r}$ for the vector field $\mathbf{F}(x,y) = y^3 \mathbf{i} + 3xy^2 \mathbf{j}$ where C is the top half of a circle centered at the origin beginning at $(2,0)$ and ending at $(-2,0)$.

2. Let $\mathbf{F}(x,y) = -y\mathbf{i} + x\mathbf{j}$. Compute $\int_C \mathbf{F} \cdot d\mathbf{r}$ for C the line segment beginning at $(1,0)$ and ending at $(2,3)$.