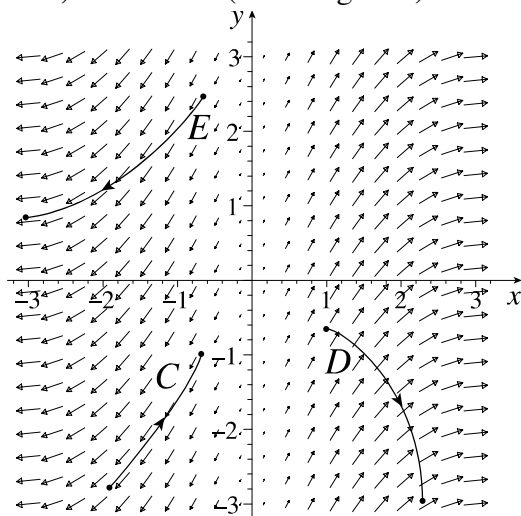


Math 213 Calculus

Reading the Text

Read Section 13.2-13.4 and answer the following questions

1. Place the three line integrals $\int_C \mathbf{F} \cdot d\mathbf{r}$, $\int_D \mathbf{F} \cdot d\mathbf{r}$, $\int_E \mathbf{F} \cdot d\mathbf{r}$ in order from largest (most positive) to smallest (most negative).



2. Evaluate $\int_C (x + y^2) ds$ where C is the line segment from $(0,0)$ to $(3,0)$.
3. Is every integral of $\mathbf{F}(x,y) = (x - y)\mathbf{i} + (x - 2)\mathbf{j}$ independent of path? Why or why not?