Quiz 3 Calculus $3 \quad$ 11/11/03
Each problem is worth 5 points. For full credit indicate clearly how you reached your answer.

1. Compute $\int_{C} \mathbf{F} \cdot d \mathbf{r}$ for $\mathbf{F}(\mathrm{x}, \mathrm{y})=<6 \mathrm{xy}, \mathrm{x}+\mathrm{y}>$ and C is the line segment from $(2,0)$ to $(3,5)$.
2. Compute $\int_{C} \mathbf{F} \cdot d \mathbf{r}$ for $\mathbf{F}(\mathrm{x}, \mathrm{y})=<6 \mathrm{xy}, 3 \mathrm{x}^{2}+2 \mathrm{y}>$ and C is the top half of a circle (centered at the origin) from $(3,0)$ to $(-3,0)$.
