10 minutes
5 points for each question
No calculators allowed

Math 285.002
Quiz 9
December 1, 2000

Name

Do all of your work directly on this sheet, using the back for scratch if necessary. *Circle your answers, and simplify them as much as possible.*

1. Evaluate $\int_C x^2 y\, ds$, where C is the line segment from $(0,1)$ to $(3,5)$. Simplify your answer as much as possible

2. Let $\mathbf{F}(x,y) = \langle 6xy, 3x^2 + 2y \rangle$. Find a function f such that $\mathbf{F} = \nabla f$, then use that information to evaluate $\int_C \mathbf{F} \cdot d\mathbf{r}$ along the parabolic path connecting $(0,0)$ to $(1,1)$ and passing through the vertex $(2,-1)$ of the parabola.