

Print your name: \_\_\_\_\_

Score

1. Determine  $\int_C y^2 dx + 2y(x+1) dy$ , where  $C$  is the curve parametrized by

$$x(t) = (-t^2/2) \cos t, \quad y(t) = \sin^2(t)/2 + t, \quad 0 \leq t \leq 3\pi/2.$$

Hint: First check to see if the vector field is conservative.

