**Name:** _____ **Panther ID:** _____

**Worksheet 11/08** MAC-2313 Fall 2018
**This is a homework due Tuesday, Nov. 13.**

**1.** (5 pts) Evaluate the line integral $\int_C (x+2y)\,dx + (x-y)\,dy$ along the curve $C : x = \cos t,\ y = 2\sin t$, $0 \le t \le \pi/4$.

**2.** (5 pts) Find the work done by the force field $F(x,y) = (x^2 + xy)\,\mathbf{i} + (y - x^2y)\,\mathbf{j}$ on a particle that moves along the curve $C : x = t,\ y = 1/t,\ 1 \le t \le 3$.