

Name: \_\_\_\_\_

1. (10 points) Use Green's Theorem to evaluate

$$\oint_C (y^2 - x^2y) dx + (2x^2 - 2xy^2) dy$$

where  $C$  is the rectangle with vertices  $(1,0)$ ,  $(2,0)$ ,  $(2,3)$ ,  $(1,3)$ .