

Math 2400: Calculus 3, Fall 2014
Homework Set 13

DUE DATE: 12/2/2014

1. Section 13.4 #1, 17.
2. Section 13.5 #5, 16.
3. Use the vector field

$$\vec{F} = -\frac{1}{2}y\vec{i} + \frac{1}{2}x\vec{j}$$

and Equation 12 (Green's Theorem) in Section 13.5 to find the area of the ellipse

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1, \quad a, b > 0$$