1. (6 pts) Use Green's theorem to compute the line integral

$$\int_C xydx + (x^2 + y)dy$$

where C is the circle  $x^2 + y^2 = 9$ .

2. (4 pts) Use a surface integral to compute the surface area of the plane z = 2 - 2x - 2y contained in the box with corners (0,0), (1,0), (1,1), and (0,1) in the xy plane.