

Name:

Section (circle one): 10-11 11-12

1. Evaluate the integral $\int_0^1 \int_0^{\sqrt{1-y^2}} \int_{x^2+y^2}^{\sqrt{x^2+y^2}} xyz \, dz \, dx \, dy$. [Hint: change to cylindrical coordinates.]

2. Find the area of the region bounded by $xy = 1$, $xy = 8$, $y = x^2$, and $y = 8$.