

## Worksheet January 22

1. Evaluate  $\int \int \int_E xy \, dV$  where  $E$  is the region bounded by  $z = x^2 + y^2$  and  $z = \sqrt{x^2 + y^2}$ .

2. Rewrite

$$\int_0^6 \int_0^{3-\frac{x}{2}} \int_0^{2-\frac{x}{3}-\frac{2y}{3}} f(x, y, z) \, dz \, dy \, dx$$

as an iterated integral of the form  $\int \int \int f(x, y, z) \, dx \, dy \, dz$ .