

Name: _____

- No electronic devices are allowed. You must show your work to obtain credit.
- You may use the back if necessary. Please indicate clearly if you do so.

1. (5 points) Evaluate the integral.

$$\int_0^1 \int_0^{z^2} \int_{y-z}^0 (x-y) dx dy dz$$

2. (5 points) Find the volume of the solid E that lies within the cylinder $x^2 + y^2 = 1$, above the plane $z = 0$ and below the cone $z^2 = x^2 + y^2$. (Possible hint: use cylindrical coordinates)