Answer the questions in the spaces provided. **Show all of your work and circle the answer you would like to have graded for each question.**

Name: _____

1. Rewrite

$$\int_0^1 \int_{\sqrt{x}}^1 \int_0^{1-y} f(x,y,z)\ dz\ dy\ dx$$

as an equivalent iterated integral in the order $dx\ dy\ dz$.

2. Describe the solid whose volume is given by

$$\int_0^4 \int_0^{\sqrt{16-x^2}} \int_0^{16-x^2-y^2} dz\ dy\ dx$$

and calculate the volume using cylindrical coordinates.