Quiz 5 6/13/2024

1. Evaluate the double integral $\iint_D \sqrt{x^2 + y^2} dA$ where D is the region bounded by the circle $x^2 + y^2 = 1$ and the circle $x^2 + y^2 = 4$ in the first quadrant.

2. Without sketching the solid $E=\{(x,y,z): 0\leq x\leq 1, 0\leq y\leq x, 0\leq z\leq y\},$ find the volume of E.