

Provide a clear and organized presentation.

1. Set up, but do not evaluate, a triple integral that would determine the volume of the region bounded by the following equations in both rectangular and cylindrical coordinates. Provide a clear sketch of the region whose volume you seek.

$$2y - z + 5 = 0, \quad x^2 + y^2 = 2x, \quad \text{and} \quad z = 0$$

2. Set up, but do not evaluate, a triple integral that would determine the volume of the region bounded by the following equations in spherical coordinates. Provide a clear sketch of the region whose volume you seek.

$$z = 5, \quad x^2 + y^2 = 4x, \quad \text{and} \quad z = 0$$