

1. Parametrize and give bounds for the portion of the paraboloid $z = x^2 + y^2$ lying above the rectangle with vertices $(0,0)$, $(2,0)$, $(2,3)$, and $(0,3)$.
2. Parametrize and give bounds for the portion of the cylinder with radius 4 centered around the z -axis between $z = 2$ and $z = 10$.
3. Parametrize and give bounds for a sphere with radius 5, centered at the origin.

1. Parametrize and give bounds for the rectangle with vertices $(3,0,0)$, $(3,2,0)$, $(3,2,5)$, and $(3,0,5)$.
2. Parametrize and give bounds for the right half (i.e. the portion with positive y coordinates) of the cylinder with radius a and centered on the x -axis between $x = 0$ and $x = 5$.
3. Parametrize and give bounds for the portion to the right of $y = 0$ of a sphere with radius 5, centered at the origin.