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.