1. Consider the paraboloid $z = x^2 + y^2$, with upward orientation, and let S be the portion below z = 16. Describe the boundary, parametrize it, and explain which way it should be orientated.

2. Consider the sphere with radius 3 centered at the origin, with outward orientation, and let S be the portion where $y \ge 0$. Describe the boundary, parameterize it, and explain which way it should be oriented.