

QUIZ #5, Math 253

1. Find the mass and center of mass of the lamina that occupies the region bounded by the lines $y = x, y = -x, x = 1$ if the density is $\rho(x, y) = x$.
2. Find the surface area of that part of the sphere $x^2 + y^2 + z^2 = a^2$ that lies above the plane $z = b$, where $0 < b < a$.