

Name: _____ **MATH 210 Quiz 8 (Oct 28, 2005)** no calculators!

(1) Let R be the region consisting of points between the circles of radii 1 and 2. Find the integral of $f(x, y) = x^2 + y^2$ over the ring R .

(2) Let D be the square lamina consisting of points (x, y) with $-1 \leq x \leq 1$ and $0 \leq y \leq 2$ with the density function $\rho(x, y) = x^2$. Compute

(a) the mass m of the lamina;

(b) the (first) moments M_x and M_y ;

(c) the coordinates of the center of mass.