

Math 3298 Worksheet 11: Double integrals

Group members (1 to 3): _____

(1) Compute the integral $\iint_R y^3 dA$ where R is the triangular region with vertices $(0, 2)$, $(1, 1)$, and $(3, 2)$.

(2) Compute the integral of $f(x, y) = x^2y$ on the upper half of the unit disk (i.e. $y \geq 0$ and $y \leq \sqrt{1 - x^2}$) using polar coordinates.