

Show all work. 5 points each.

1. Calculate the iterated integral $\int_1^3 \int_0^1 (1 + 4xy) dx dy$

2. Draw the region $D = \{(x, y) | 0 \leq x \leq 2, -x \leq y \leq x\}$ and evaluate the integral $\iint_D x^3 y^2 dA$.