

Show all work. 5 points each.

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

2) Evaluate the integral  $\int \int_D x^3 y^2 dA$  where  $D = \{(x, y) | 0 \leq x \leq 2, -x \leq y \leq x\}$