
Show all work. 5 points each.

1. **Set up the double integral** for integration. $\iint_D y \, dA$, D is bounded by $y = x - 2$, $x = y^2$

2. Evaluate the integral. $\iint_D yx^2 \, dA$, D is enclosed by $y = 0$ and $y = \sqrt{1 - x^2}$