# QUIZ 9 - MATH 251
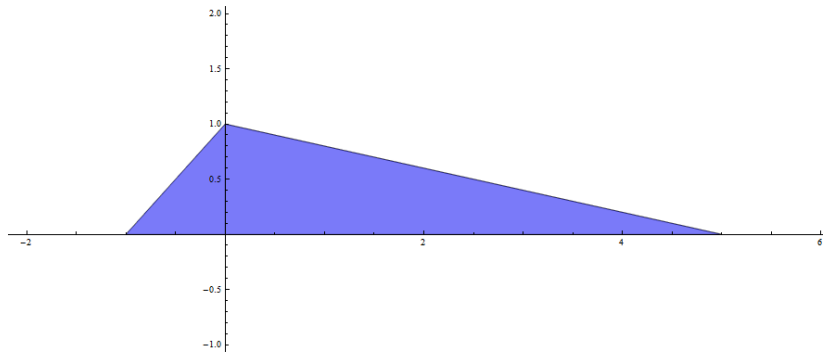
YOUR NAME:_____

George Voutsadakis

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Compute the double integral of $f(x,y) = y^2$ over the region shown in the figure.



2. Sketch the domain $\mathcal{D}$ and express the following integral as an iterated integral in the opposite order. (You do not have to compute anything!)

$$\int_0^1 \int_{e^x}^e f(x,y)dydx.$$

3. Compute the integral of $f(x,y) = e^{x+y}$ over the domain $\mathcal{D}$ bounded by

$$y = x - 1, \quad y = 12 - x, \quad \text{for} \quad 2 \le y \le 4.$$