

**Class Exercise 6**

1. Evaluate

$$\int_0^2 \int_{y/2}^{(y+4)/2} y^3(2x-y)e^{(2x-y)^2} dx dy .$$

2. Evaluate

$$\iint_D \frac{y}{x} dA$$

where  $D$  is the region bounded by  $y = x/2$ ,  $y = 0$ ,  $x^2 - y^2 = 4$ ,  $x^2 - y^2 = 1$ .