General Stuff

- Office Hours

  T: 12:30 - 1:30, Th: 10 - 11

- Lab 4 due tonight

  Exercises 1,3

1. Evaluate the integral

$$\iint_{\Omega} x^2 y + xy^2 \, dx \, dy$$

where $\Omega = [0, 1] \times [2, 3]$.

2. Let W be the region bounded by the equations $x = 0$, $y = 0$, $y = 1$ and $y = x^2$. Evaluate the integral

$$\iint_W x - y \, dA$$

using two different orders.

3. Find the area of the region between the graphs of $y = 2x - 1$ and $y = x^2 - 2$.

4. Integrate the function $f(x, y) = x + y^2 - 2$ on the region Ω bounded by the equations $y = 2$, $y = -x$ and $y = x$.

5. Evaluate the integral

$$\iint_D 2y \, dA$$

where D is the region bounded by the equations $y = e^{2x}$ and $y = (e^2 - 1)x + 1$.

4. Integrate the function $f(x, y) = x + y^2 - 2$ on the region Ω bounded by the equations $y = 2$, $y = -x$ and $y = x$.

5. Evaluate the integral

$$\iint_D 2y\,dA$$

where D is the region bounded by the equations $y = e^{2x}$ and $y = (e^2 - 1)x + 1$.