MATH 2215

Quiz #3

1. Evaluate the following integral

$$\int_{\Omega}\int x\,dxdy,$$

where Ω is the region bounded by the x-axis and the curve $y = \sin x$, $0 \leq x \leq \pi$.

2. Sketch the region; change the order of integration; evaluate the resulting integral

$$\int_0^{\sqrt{\pi}} \int_y^{\sqrt{\pi}} \sin(x^2)\,dxdy$$