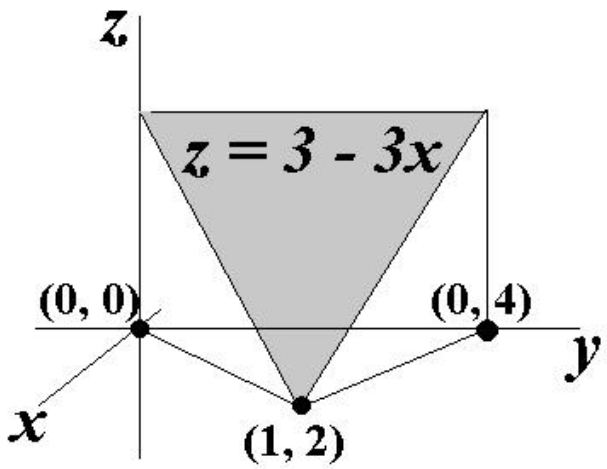
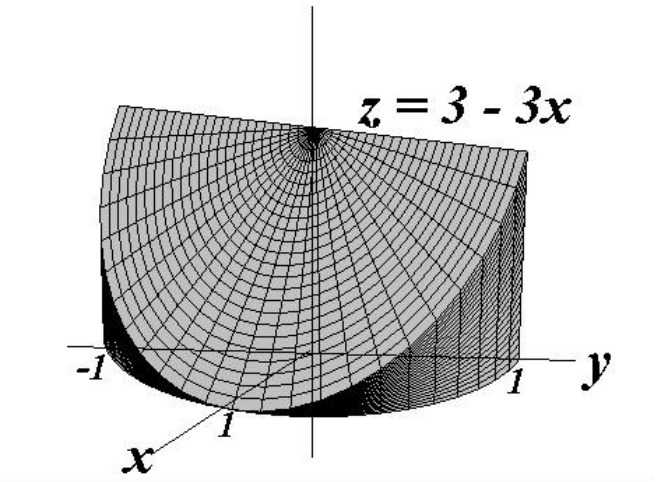
Let T be the triangle in the xy plane with vertices $(0,\ 0)$, $(1,\ 2)$ and $(0,\ 4)$.

$$\iint_T (3 - 3x)\, dA = \int \quad \int \quad (3 - 3x)\, dy\, dx$$



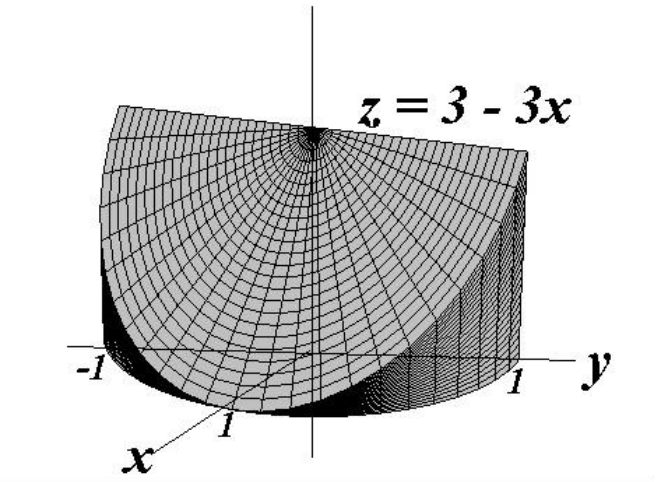
Let R be the semicircular region in the xy plane bounded by the y-axis and $x = \sqrt{1 - y^2}$

$$\iint_R (3 - 3x)\, dA = \int \quad \int \quad (3 - 3x)\, dy\, dx$$



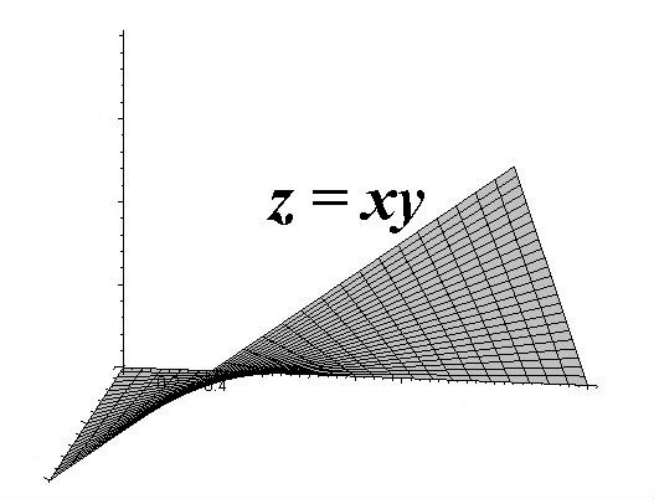
Let R be the semicircular region in the xy plane bounded by the y-axis and $x = \sqrt{1 - y^2}$

$$\iint_R (3 - 3x)\, dA = \int \quad \int \quad (3 - 3x)\, dx\, dy$$

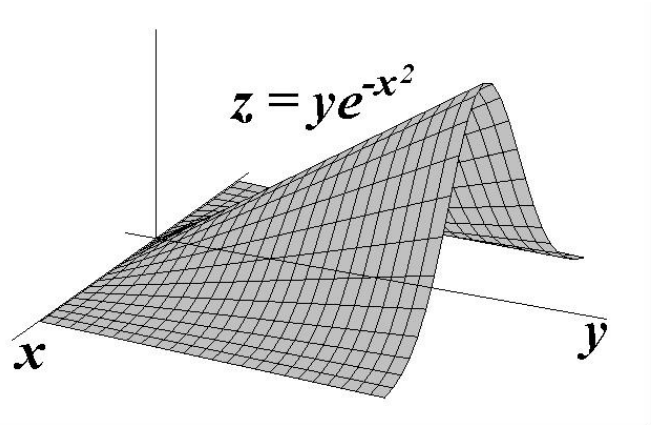


Let Ω be the region in the xy plane bounded by the curve $x = y^2$ and the line $y = 0$ and $x = 1$

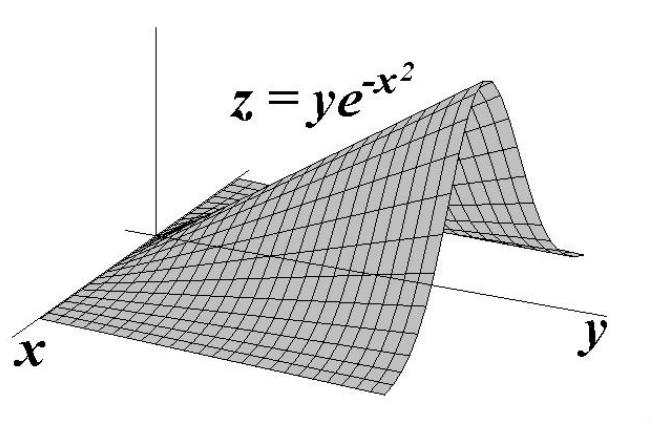
$$\iint_{\Omega} xy \, dA = \int \quad \int \quad xy \, dx \, dy$$



$$\iint_{\Omega} ye^{-x^2}\,dA = \int_0^1 \int_{y^2}^1 ye^{-x^2}\,dx\,dy$$

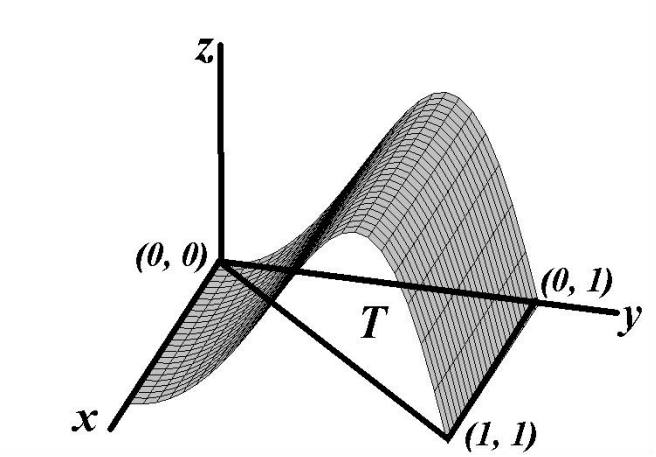


$$\iint_{\Omega} ye^{-x^2}\,dA = \int \quad \int \quad ye^{-x^2}\,dy\,dx$$



Let T be the triangle in the xy plane with vertices $(0,0)$, $(1,1)$ and $(0,1)$

$$\iint_T \sin\left(\pi y^2\right)\, dA = \int \qquad \int \qquad \sin\left(\pi y^2\right)\, dy\, dx$$



Let T be the triangle in the xy plane with vertices $(0,0)$, $(1,1)$ and $(0,1)$

$$\int\int_T \sin\left(\pi y^2\right)\, dA = \int \qquad \int \qquad \sin\left(\pi y^2\right)\, dx\, dy$$