

① Find the flux of $\vec{F} = \langle x^2y, z+x, 3z+8xy \rangle$ through ∂K where $K = [1, 2] \times [3, 4] \times [5, 6]$.

Day
57

② Find the volume of the region enclosed by the asymmetric torus T parametrized by

$$x = 5(2 + \cos \psi)(\cos \theta) / (5 + 4 \cos \theta)$$

$$y = 5(3 + \cos \psi)(\sin \theta) / (5 + 4 \cos \theta)$$

$$z = \sin \psi$$

$$0 \leq \psi \leq 2\pi$$

$$0 \leq \theta \leq 2\pi$$

(See attached plot if you're curious.)

