26 12-02-2025 - Final Review

26.1 Section 6.8, Checkpoint 6.66

Use the divergence theorem to calculate the flux integral $\iint_S \mathbf{F} \cdot d\mathbf{S}$, where S is the boundary of the box given by $0 \leq x \leq 2$, $1 \leq y \leq 4$, $0 \leq z \leq 1$, and $\mathbf{F}(x, y, z) = \langle x^2 + yz, y - z, 2x + 2y + 2z \rangle$ (pull up textbook for figure)