

Math 3298 Worksheet 37: Divergence theorem

Group members (2 to 4): _____

(1) Calculate the flux of $\vec{F} = (xy, yz, zx)$ out of the closed cylinder $x^2 + y^2 \leq 1$,
 $z \geq 0, z \leq 1$:

(a) Directly

(b) ... by using the divergence theorem.