

Math 3298 Worksheet 30: div, grad, curl

Group members (2 to 4): _____

(1) Compute the divergence of the curl of $\vec{F} = (xy^2, xyz, x)$.

(2) Construct a vector field $\vec{G}$ such that $\text{curl}(\vec{G}) = (1, 0, 0)$ and each component of $\vec{G}$ is non-constant.

(3) Can you find a function $f(x, y, z)$ for which the $\text{curl}(\nabla f) \neq 0$?