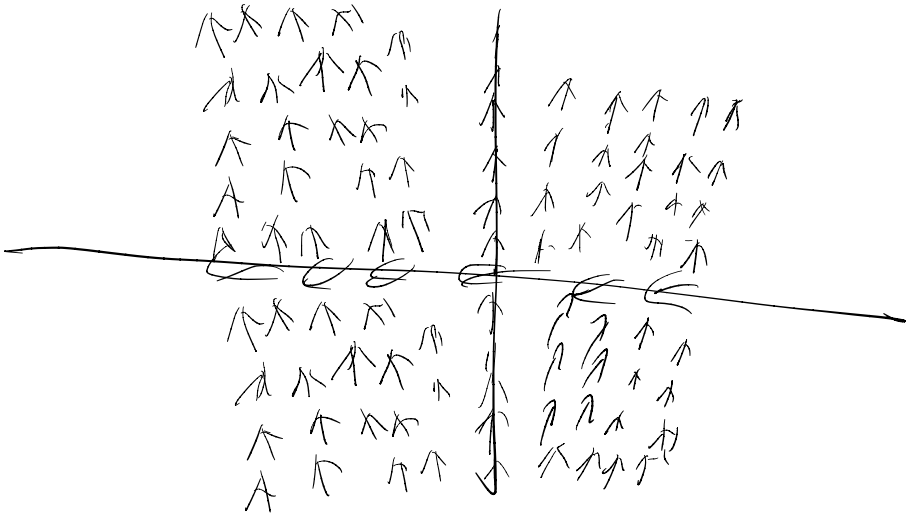
"QUIZ" for Lecture 17

NAME: (print!) Fayed Ruza **Section:** 6

E-MAIL SCANNED .pdf OF COMPLETED QUIZ to DrZcalc3@gmail.com (Attachment: q17FirstLast.pdf) ASAP BUT NO LATER THAN Nov. 5, 8:00pm

1. Sketch the vector planar vector field

$$\mathbf{F} = \langle x, y^2 \rangle \quad .$$



2. Find a potential function for the vector field $\mathbf{F}$

$$\mathbf{F} = \langle y\cos(xy), x\cos(xy) \rangle \quad .$$

$\langle \cos(xy) - \sin(xy)xy(0),\ 0,\ \cos(xy) - \sin(xy)\,xy + x^2\cos(xy) =$

$f(x,y,z) = \cos(xy) - \sin(xy)xy + x^2\cos(xy)$