

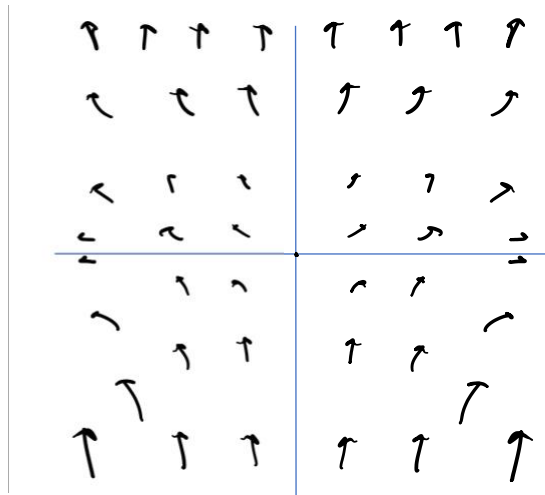
"QUIZ" for Lecture 17

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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

2. $F = \langle x, y^2 \rangle$.



3. Find a potential function for the vector field F

$$F = \langle y \cos(xy), x \cos(xy) \rangle.$$

$$F = \left\langle \frac{\partial}{\partial x}, \frac{\partial}{\partial y} \right\rangle$$

$$\int y \cos(xy) dx \rightarrow \sin(xy)$$

$$\int x \cos(xy) dy \rightarrow \sin(xy)$$

$$\rightarrow \boxed{f = \sin(xy)}$$