

## ASSIGNMENT

Read section 16.1 for the homework.

- p. 944 9,11,13,18,23,27

## TAKE-AWAYS

After reading this section, attending this class and doing this homework you should

- know how to identify vector fields by asking questions either about the picture or the function. Questions such as: what happens as  $x \rightarrow \infty$ ? is there any symmetry? how do the lengths vary?
- know how to take partial derivatives
- understand what it means for a vector field to be conservative and how you show if one is (there is more than way to show that a conservative vector field is conservative)
- understand what a potential function is and in what sense potential functions are unique

## OTHER STUFF

This url

[http://www.brookscole.com/math\\_d/special\\_features/calclabs/mv4e\\_ti\\_89\\_92/ch07.pdf](http://www.brookscole.com/math_d/special_features/calclabs/mv4e_ti_89_92/ch07.pdf)

links to a pdf whose first few pages include an example of how to plot a vector field on your TI-89.