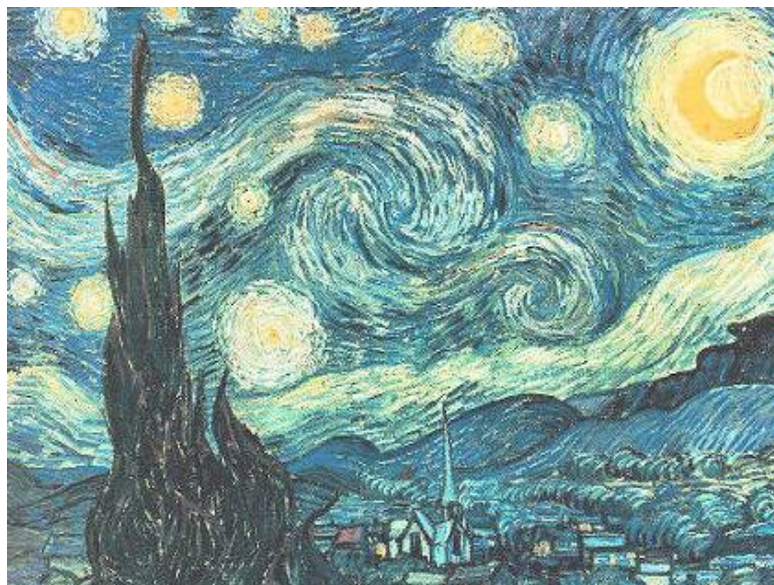


## Slope Fields

the slope, or direction, at each point of a differential equation

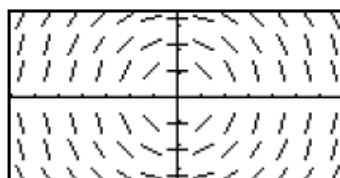
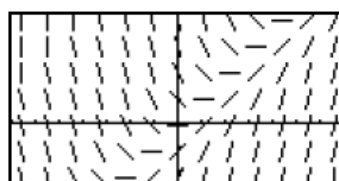
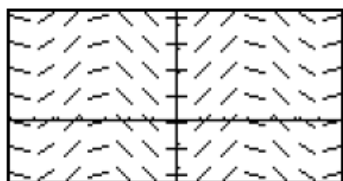
Helpful when can't do it analytically.

It's like impressionists paintings...it will pop out before your eyes.



## Slope Fields

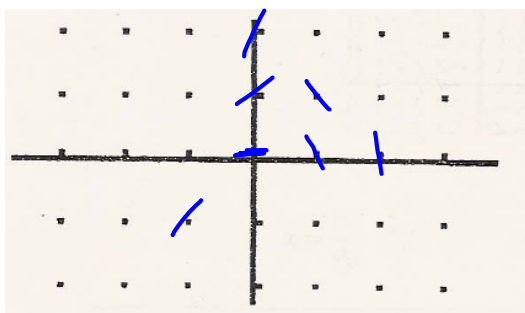
the slope, or direction, at each point of a differential equation



## Slope Fields

Look for patterns: horizontally,  
vertically, or  
sometimes diagonally

Create the slope field for:  $y' = y - 2x$



$(x, y)$	$\frac{dy}{dx} = y - 2x$	$m$
$(0,0)$	$0 - 2(0) = 0$	0
$(1,0)$	$0 - 2(1) = -2$	-2
$(2,0)$	$0 - 2(2)$	-4
$(0,1)$	$1 - 2(0)$	1
$(0,2)$	$2 - 2(0)$	2
$(-1,-1)$	$-1 - 2(-1)$	1
$(1,1)$	$1 - 2(1)$	-1

# slope field packet

we come back to 17, 18 parts c and d  
after section 6.2