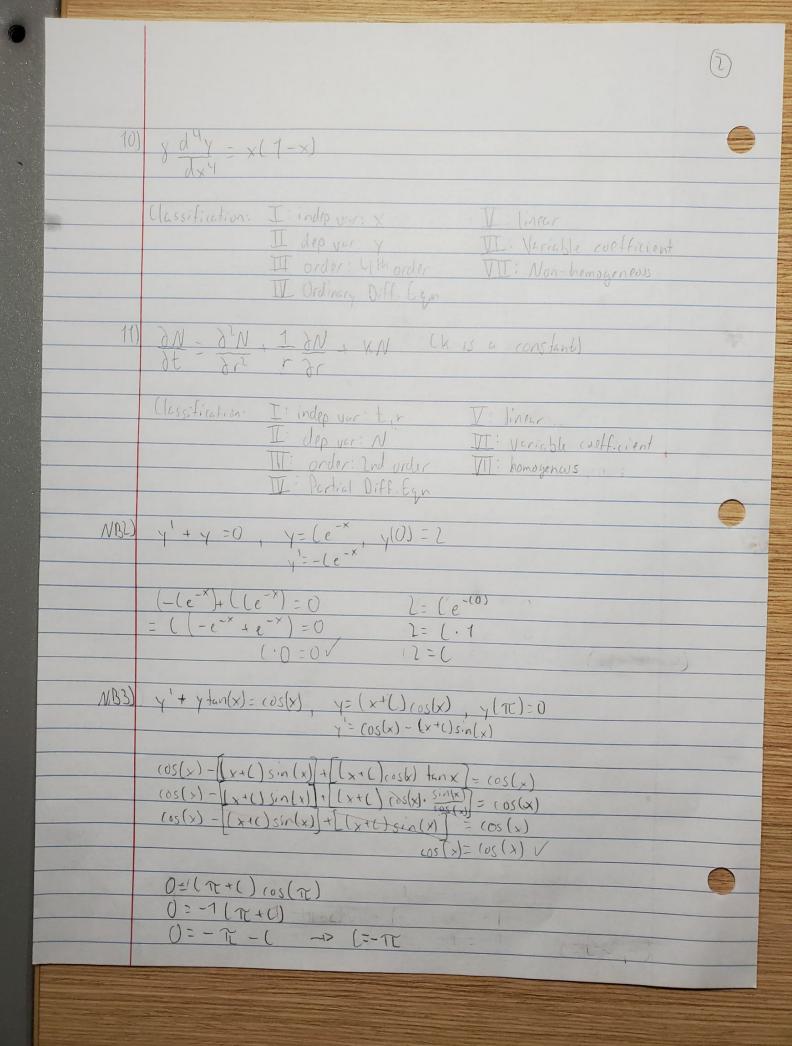
		0
	Alex Iacob Prof. Barlow	MATH 237-54 HW#1
NB1)	Je 1 2	
	Classification: I: indep var: t, x, y, 7 Tinonlinear  II: dop var: U, P	
. 14	III: order. Ind order W: Partial Diff Egn	
1)	Section 1.1  5 d2x + 4 dx + 9x = 2 cos(3t)	
	Classification: I: indep.yar: t I: linear  II: dep.ver: x II: Constant coefficient  III: order: 2nd order III: Non-homogenous  II: Ordinary Piff. Egn	
	Jr - Jr - 0	
	Classification: I: indep.var: X,y I: linear II: dep.var: V II: (onstant (oefficient III: order: Ind order III: homogenous III: Partial Diff. Egn	
6)	dx = K(4-x)(1-x)	And the second s
	Classification: I: indep.var: t II: nonlinear III: order: 1st order IV: Ordinary Diff. Eyn	



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8) $y = 3\sin(2x) + e^{-x}$ $y'' + 4(y = 5e^{-x})$	<
$y'' = -12\sin(2x) + e^{-x}$ $y'' + 4y = 5e^{-x}$	
(-12 sin(2x)+e-x)+ 4(3 sin(2x)+e-x)=5e-x (-12 sin(2x)+e-x)+(12 sin(2x)+4e-x)=5e-x	
$e^{-x} + 4e^{-x} = 5e^{-x}$ $5e^{-x} = 5e^{-x}$	
Direction field questions  16) y'=1: ( because each line has a slope of 1	
17) y'=y: D because as the slope-lines get furth x-axis, the more vertical they get.	er from the
18) y'= 1/t: F because all edirection fields on 4/	t white a
19) y'= t2: B because the direction fields become as they approach the yaxis.	
20) y'= t2xy2: E because is strictly resembles (, it has a tighter spread.	y'=t2), except
21) y'= 1/2: A because the function hegins to c	up towards