## EXERCISE 44

1-	y" +3y' +2y=6	2 44" + 94 = 15
	SOLUTION 8-	40LUTION8-
	$m^2 + 3m + 2 = 0$	4m² +9 = 0
-	m(m+2)+(m+2)=0	$m^2 = -9/4$
	(m+2) (m+1)	$m = \int_{-q/q}^{-q/q}$
	m=-2, m=-	m = ± 3/2 L
	ye = Cie2x + Cze2	y = C15in 32 2 + C2 Cas 3/2 2
	yρ = C3	Je
- 1	y'ρ = 0	Yp = C3
	y"p = 0	yρ=0
	Now put in question	'p" = 0
1	(0)+3(0)+2(Cs)=6	
	2/C3 = 6	4(0) + 9(C3) = 15
	C3 = 3	C3 = 5/3
	y= C1e2x + C2ex+3	y = C1 Sin 3 x + C2 Cas 3 x + 5
-	0	0 2 2 3

	Date:
3- y"-10y'+25y = 36x+3 4	y'' + y' - 6y = 2x
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AOLUTION:	GOLUTION 8-
$m^2 - 10m \cdot +25y = 0$	$m^2 + m - 6 = 0$
(m-5)(m-5)=0	m=2, m=-3
m= 5,5	y = Ge2x + Ge-3x
SO,	
yc = Ciesx + x Czesx	yp= C3n+Cy
	4'p= C3
8p = C3x + C4	g"p= 0
y'p = C3	
y = 0	(0)+(c3)-6((3n+(4)=2x
Now put in question.	63-66371+664=2x
$(0)-10(C_3)+25(C_32+C_4)=30x+3$	$-6C_3\pi = 2x$
-10G+25xC3+25C4=30x+3	C3 = -1/3
25C32= 302	C3-6C4 = 0
$C_3 = 6/5$	61/3)-6(y=0
$-10(6) + 25C_4 = 3$	-6C4 = 1/3
-12 + 25Cy = 3	Cy =-1/18
254=15	7.0
	y= Ge2+Cze-12 -12
C4 = 15/25	3 18
y= Ciesx + n Czesx + 6 x + 3	
5 5	

$-\frac{1}{4}y'' + y' + y' = x^2 - 2x$	4 60 6
AOLUTION 8-	1111
1	
$\frac{1}{4}m^2 + m + 1 = 0$	7.1
m=-2, $m=1/4$	
4c=C1e-2x + C2e44	
yp= C322+C421+C5	-
y'p = C32n + C4r	
y"ρ = 2C3	
Now,	
ty (2(3)+(2(37+(4)+((32+(47+(5))=22-2x	
=> $\frac{1}{2}C_3 + 2C_3n + C_4 + C_3n^2 + C_4n + C_5 = n^2 - 2$	X
$C_3 x^2 = x^2$	
(C3 = 1)	
$2C_3n + C_4n = -2x$	
(2(1) + (4)) x = -2x	
2 + C4 = -2	75
Cy = -2-2	
C4 = -4	
163+64+65=0	
20	
£(1) + (-4) + (5 = 0	
$-\frac{7}{2} + c_5 = 0$	
$C_5 = V_2$	
y= Cie-2x + Cze +22 -42+1	<u> </u>
2	6.7
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4"	- 8y' +20y = 100x2 - 26xe2
	4
ন	DLUTION 8-
	$^{2}-8m+20=0$
	m=4±2i
yc	= e4x[C, Cos2x + C2Sin2x]
0	
71	$\rho = (00x^2)$
81	P= Ax2+Bx+C
4	ρ= 2Ax+ B
	"P= 24
,	
(2	$(A) - 8(2Ax + B) + 20(Ax^2 + Bx + C) = 100x^2$
12	$A - 16Ax - 8B + 20Ax^2 + 20Bx + 20C = 100x^2$
+	$\frac{26Ax^{2} + 106x^{2}}{A = 5} = \frac{24 - 8B + 20C = 0}{2(s) - 8(4) + 20C = 0}$
+	
+	-16Ax + 20Bx = 0 $20C = 22-16(5) + 20B = 0$ $C = 11/10$
1	B = 4
1	4e = 522 +4x + 11/10
	yp= -26 ne
	$y_{\rho_{k}} = (Ax+B)e^{n}$
+	$y'_{\beta} = Ae^{\lambda} + (Ax + B)e^{\lambda}$
+	$y'p = e^{n}(A+Ax+B)$ $y''p = Ae^{n} + (A+Ax+B)e^{n}$
+	$= e^{\alpha}(2A + Ax + \beta)$
= [	e7(2A+Ax+B)]+20[e7(Ax+B)]-8[e7(A+B+Ax)]=-262e7
2)	e [Ax + 2A + B + 20Ax + 20B - 8A - 8B - 8A z] = -26ae2
	e7[13Ax -6A +13B]=-26ne2
-	$13A = -26 \qquad  -6A + 13B = 0 \qquad \text{yp} = (-2x - 12)e^{\pi x}$
	A = -2 $-6(-2) + 13B = 0$ $B = -12/3$
50	

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	Date:	Date:
-	y"-y' = -3	$y'' + 2y' = 2x + 5 - e^{-2x}$
	AOWTIONS.	HOLUTION 8-
	$m^2 - m = 0$	$m^2 + 2m = 0$
	m=1, $m=0$	m=0, m=-2
	y=4e2+C2	y = C1+ C2e-2x
	yp = Ax	$yp = Ax^2 + Bx + \pi Ce^{-2x}$
-	y'p = A $y''p = 0$	$y'p = 2Ax + B + C(u)(4e^{2x}) + (e^{-2x})(-2)(u)$
+	y"ρ=0	yp= 2Ax +B+Ce-2x - 2Cxe-2x
	0 - (A) = -3	4"p=24-2ce-x-2cle-x+e-x+2)(n)
	A=3	y'p = 24-2ce-2 - 2ce-2x + 4ce-2x
-	4 9 . ( 12 ]	20/-18/1/-28/20/-28/20/-28/20/-28/20/-28/20/-28/20/-28/20/-28/-28/20/-28/
- 0	y= Cie2 + Cz +3n	=>2A -2ke-1x+yke-1x -2ke-2x+4Ax+2B+2ke-2 -4 Cne-1x
+	Ans	=> $4Ax + 2A + 2B - 2Ce^{-2x} = 2x + 5 - e^{-2x}$
1		4A = 2 2A + 2B = 5
		A = 1/2 2(12)+2B=5
		B=2
		-2(=-1
		$C = = V_2$
-		y=4+Ce2+122+2n+12e2x
+		2 2 2
		Aug
-		

20 UTIONS -  m <sup>2</sup> -16=0  m <sup>2</sup> -16=0  m <sup>2</sup> -16  m=±y  y=4=0  m=2i, -2i  y=4=0  164=0  15 y=4=0  y=4=0  y=4=0  y=4=0  164=0  So,  y=4=0  A  15 y=4=0  y=4=0  y=4=0  y=4=0  y=4=0  y=4=0  A  y=4=0  A=0  So,  y=4=0  A=0	1	Sur.	Date:
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	12	y"-16y=2e"-()	18 4" +44 = 35in2x -6
$m^{2}-16=0$ $m^{2}=16$ $m^{2}=-4$ $m=\pm 4$ $y=C_{1}e^{4x}+C_{2}e^{4x}$ $y=C_{1}e^{4x}+C_{2}e^{4x}$ $y=C_{1}e^{4x}+C_{2}e^{4x}$ $y=A_{1}e^{4x}+A_{2}e^{4x}$ $y=A_{2}e^{4x}+A_{2}e^{4x}$ $y=A_{2}e^{4x}+A_{2}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}$ $y=A_{4}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}$ $y=A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}$ $y=A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}$ $y=A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}$ $y=A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^$			
$m^{2}-16=0$ $m^{2}=16$ $m^{2}=-4$ $m=\pm 4$ $y=C_{1}e^{4x}+C_{2}e^{4x}$ $y=C_{1}e^{4x}+C_{2}e^{4x}$ $y=C_{1}e^{4x}+C_{2}e^{4x}$ $y=A_{1}e^{4x}+A_{2}e^{4x}$ $y=A_{2}e^{4x}+A_{2}e^{4x}$ $y=A_{2}e^{4x}+A_{2}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}+A_{4}e^{4x}$ $y=A_{3}e^{4x}+A_{4}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}$ $y=A_{4}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}$ $y=A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}$ $y=A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}$ $y=A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}$ $y=A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^{4x}+A_{5}e^$		SOLUTION8 -	GOLUTION:-
$m^{2} = 16$ $m^{2} = -4$ $m^{2} = 1$ $y^{2} = (e^{4x} + (2e^{4x})$ $y^{2} = A^{2} + $			
$m = \pm 4$ $y = C_1 \sin 2x + C_2 \cos 2x$ $y_p = A \sin 2x + B \cos 2x$ $y_p = A (\sin 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\sin 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\sin 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\sin 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + B (\cos 2x - 2x \sin 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x + 2\pi \cos 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x + 2\pi \cos 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x + 2\pi \cos 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x + 2\pi \cos 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x + 2\pi \cos 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x + 2\pi \cos 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x + 2\pi \cos 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x + 2\pi \cos 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x + 2\pi \cos 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x + 2\pi \cos 2x)$ $y_p = A (\cos 2x + 2\pi \cos 2x) + A (\cos 2x + 2\pi \cos 2x)$ $y_p = A (\cos 2x + $			1
$y = C_1 \sin 2\pi x + C_2 \cos 2\pi$ $y = A \sin 2x + B \cos 2x$ $y = A \sin 2x + B \cos 2x - 2B \sin 2x$ $y = A \sin 2x + 2A \cos 2x - 2B \sin 2x$ $y = A \sin 2x + 2A \cos 2x - 2B \sin 2x$ $y = A \sin 2x + 2A \cos 2x - 2B \sin 2x$ $y = A \sin 2x + 2A \cos 2x - 2B \sin 2x$ $y = A \cos 2x + 2A \cos 2x - 4A \sin 2x$ $y = A \cos 2x - 4B \sin 2x - 4B \sin 2x - 4B \sin 2x$ $y = A \cos 2x - 4B \sin 2x - 4B \sin 2x - 4B \sin 2x$ $y = A \cos 2x - 4B \sin 2x - 4B \sin 2x - 4B \sin 2x$ $y = A \cos 2x - 4B \sin 2x - 4B \sin 2x - 4B \sin 2x - 4B \sin 2x$ $y = A \cos 2x - 4B \sin 2x - 4B \sin 2x - 4B \sin 2x - 4B \sin 2x$ $y = A \cos 2x - 4B \sin 2x -$	-		m=2i ,-2i
$y = Ae^{ix}$ $y = A[\sin 2x + 2\pi \cos 2x] + B[\cos 2x - 2x \sin 2x]$ $y = A[\sin 2x + 2\pi \cos 2x] + B[\cos 2x - 2x \sin 2x]$ $y = A\sin 2x + 2\pi \cos 2x + B\cos 2x - 2Bx \sin 2x$ $y = A\cos 2x + 2\pi \cos 2x + A\pi \sin 2x$ $y = A\cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $y = A\cos 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x$ $y = A\cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = Ae^{ix} + Ae^{ix} + Ae^{ix}$ $y = A\cos 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = A\cos 2x + A\pi \sin 2x + A\pi \sin 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = Ae^{ix} + A\pi e^{ix} + A\pi e^{ix}$ $y = Ae^{ix} + A\pi \cos 2x + A\pi \cos 2x + A\pi \sin 2x$ $y = Ae^{ix} + A\pi e^{ix} + A\pi e^{ix}$ $y = Ae^{ix} + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = Ae^{ix} + A\pi e^{ix} + A\pi e^{ix}$ $y = Ae^{ix} + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = Ae^{ix} + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = Ae^{ix} + A\pi e^{ix} + A\pi e^{ix}$ $y = A\sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos $		4= Ge4x + Cze 4x	y= C15in2n+ C2 C052n
$y = Ae^{ix}$ $y = A[\sin 2x + 2\pi \cos 2x] + B[\cos 2x - 2x \sin 2x]$ $y = A[\sin 2x + 2\pi \cos 2x] + B[\cos 2x - 2x \sin 2x]$ $y = A\sin 2x + 2\pi \cos 2x + B\cos 2x - 2Bx \sin 2x$ $y = A\cos 2x + 2\pi \cos 2x + A\pi \sin 2x$ $y = A\cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $y = A\cos 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x$ $y = A\cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = Ae^{ix} + Ae^{ix} + Ae^{ix}$ $y = A\cos 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = A\cos 2x + A\pi \sin 2x + A\pi \sin 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = Ae^{ix} + A\pi e^{ix} + A\pi e^{ix}$ $y = Ae^{ix} + A\pi \cos 2x + A\pi \cos 2x + A\pi \sin 2x$ $y = Ae^{ix} + A\pi e^{ix} + A\pi e^{ix}$ $y = Ae^{ix} + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = Ae^{ix} + A\pi e^{ix} + A\pi e^{ix}$ $y = Ae^{ix} + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = Ae^{ix} + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $y = Ae^{ix} + A\pi e^{ix} + A\pi e^{ix}$ $y = A\sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos 2x$ $-AB\sin 2x + A\pi \cos 2x + A\pi \sin 2x + A\pi \cos $	-		40 = AxSinax +BxBos2x
$yp = A \left[ 4ne^{ux} + e^{ux} \right]$ $yp = A \sin 2x + 2A x (\cos 2x + B \cos 2x - 2B x \sin 2x)$ $yp = 16Axe^{ux} + 4ne^{ux} + 4ne^{ux}$ $yp = 16Axe^{ux} + 4ne^{ux}$		yp= Ae x	40 = A[Sin 2x+22 (052x)+B[cos2x-2x Sin2x
$y''_{2} = 16Axe^{4x} + 4Ae^{4x} $ $y''_{2} = 16Axe^{4x} + 4Ae^{4x} + 4Ae^{4x} $ $y''_{3} = 16Axe^{4x} + 4Ae^{4x} + 4Ae^{4x} $ $-2Bsin2x - 2Bsin2x - 4Bx (os2x)$ $-2Bsin2x - 4Bx (os2x) $ $-4Bsin2x - 4Bsin2x - 4Ansin2x$ $-4Bn (os2x) $ $-4Bn (os2x)$		yp=A[4πet +e4x]	4p= Asin 7x + 2Ax Cos2x + B Cos2x - 2Bisim
$y'' = 16Axe^{4x} + 4Ae^{4x} + 4Ae^{4x}$ $-2Bsin2x - 2Bsin2x - 4Bx (os2x)$ $Now putting in ear(1)                                    $	_	4p=4Axe"+Ae"	0,
Now putting in ear(1)  [16A $\times e^{4y}$ + $y + e^{4x}$ + $y + e^{4x}$ - $y'' = y + x + x + y + x + x$			y"= 2AC082x +2ACOS2x -4 Ax Sin2x
$     \begin{bmatrix}                                $		4p = 16 Axe + 4Ae + 4Ae 4x	-2Bsin2x -2Bsin2x -4Bx Cos2x
$   \begin{array}{ccccccccccccccccccccccccccccccccccc$			
$8A = 2$ $A = \frac{1}{4}$ $A = 0$ $A = 0$ $A = 0$ $A = 0$		[16Axe4+4Ae4+ 4Ae4x]-16An=2e4x	-48 x cos2x
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		16 Aneux - 164eun +8Aeux = 2eux	
$y = C_1 e^{4x} + C_2 e^{4x} + C_4 e^{4y} $ $y = C_1 e^{4x} + C_2 e^{4x} + C_4 e^{4y} $ $-4B = 3$ $B = -3/4$ $4A = 0$ $A = 0$ $A = 0$ $So,$		8A = 2.	
$A^{US} = 3$ $UA = 0$ $A = 0$ $So_{1}$		A = 1/4	
$A^{US} = 3$ $UA = 0$ $A = 0$ $So_{1}$		4= Cie 4x + Cie 4x + Le 4x	
YA = 0 [A=0] So,		0	
So,		Aus	16 = -3/4
So,			4A=0
			A=0
y = C <sub>1</sub> Sin 2x + C <sub>2</sub> Cos 2x -3 2 Cos 2x			
			y= C,Sin 2x + C2 Cos 2x -3 2 Cos2x
			Acre.
		The State of the Line	an interest of the second
			Charles and the Control of the Contr
			i i i i i i i i i i i i i i i i i i i
(3)	-		(3)

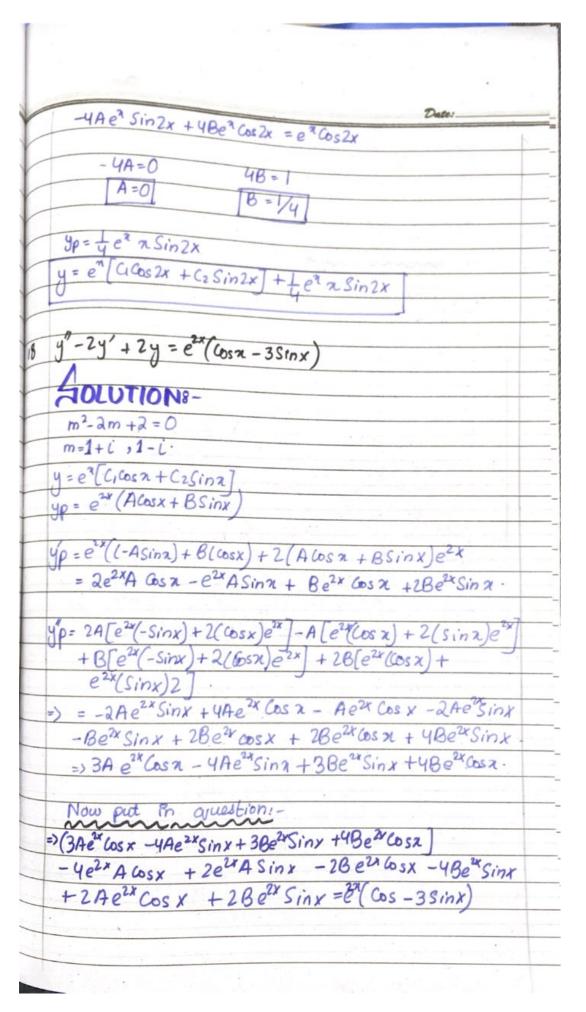
4	$y'' - 4y = (x^2 - 3) \sin 2x - 0$	11 - 1921
		1
3	JOLUTION :-1	Millia
	m2-4=0	
	The state of the s	
-	m = 2,-2	
-	y = C1e2x + C2e2x	
	4p - (Ax2+Bx+c) Sin2x+(Dx2+Ex+F) Cos	2x ·
	Jp = ((2Ax +B) sin2x + (Ax + Bx + C) 2 (00)	1]+(20x+E)Cos2x
	$+ (Bx^2 + Ex + F)(-2sin 2x)$	
	=> (2Ax + B-20x2-2Ex-2F) Sin2x + (2A	x2+28x+2C+20x+E)(03)
	and the state of t	
	yp= (74-40x-2E) Sin2x+ (2An+B-20x	2 _ 7EX4-2F ) 2 (032x +
	(4Ax + 2B +2D) cos2x - 2 (2Ax2 +2	2Bx + 2C +2Dx + 6 C2
	2A-40x-26-4Ax2-4Bx-4C-4Dx	-26 \ S/22 +
Bro	(4Ax+2B-4Dx2-4Ex-4F+4A	x +2B +20) cos 2r
	(-40x2 -80x -4Bx +2A -4C-4E)	Sin2x+
	(-40x2 +8Ax -4Ex +4B -4F	+2D) Cos2x
	-4[(Ax2+Bx+ C)Sin2x - (Ox2+	Ex+F)(052x]=(x23)562
	MA PAGE	
	Sin2x(-4Ax2-84(20+B)x +2A-4C-4	E-4Ax2-4Bx-40=(x23)
_		SUR
. 1	=> -8Ax2 -4(20+2B)n+2A-4E-8(	22 6
	comparing Cosixteins	= 1-3 - (0)
.	(-40x2 + 8Ax -4Ex + 40-4E + 60	
	$(-40x^2 + 8Ax - 4Ex + 4B - 4F + 20 - 40)$ -80x2 - 4(2F - 2A)= 0=	x -4Ex -4F (051x=0
+	CHI THE THE THE TENT	- ^ 4
-	much frances with 10	f sin 2x of euro:
-	- OHX = X termwith O.	
	-8A = 1 $-4(20 + 2B)n = 0$	
	A =-1/8 20 + 2B = 0	^
	A = - D	3
	Now comparing constants with-3.	
-	9	
1	2(-1/8)-4E-8C = -3	
-	-4 -4E -8C=-344)	

1	Now comparing cos2x terms with zero:
	$-80 \pi^2 = 0$
	-80=0
-	D = 0
_	Now (3)=>
_	$\beta = -D$
_	8=0
-	
	11/25 22/1/20
	-4(2E-2A)x=9x
	2E - 2A = 0
	2 E-2(-1/8)=0
	2E + 1/4=0
	E = -1/8
	and the state of t
	Now ear (9 =)
	-1 -4E -8C =-3
E.	- 1/4 -4(-1/8)-8C=-3
	$\frac{-4}{4} - 4(-18) - 8(=-3)$ $\frac{1}{4} - 8(=-3)$
	-8C= -3-1/4
	18C=A3/4
N.	8C=13/32
1	FOAF:-
	Compaing constant of cos2x:
	-8F + 4B + 2D = 0
1	-8F+4(0)+2(0)=0
	-8F = 0
T	F= 0
	So, -2x
	8c= Ciex + Cze
1	Op = (-8 22 + 13/32) 5 in 2x + (8 2) 00000
-	$y = -\frac{1}{8}x^{2}\sin 2x + \frac{13}{13}\sin 2x - \frac{1}{8}x\cos 2x$ $y = Cie^{2x} + Cie^{-\frac{1}{2}x^{2}} - \frac{1}{8}x^{2}\sin 2x + \frac{13}{32}\sin 2x - \frac{1}{8}\cos 2x$
-	4 = Cie + Cie - 1 x2 Sin2x + 13 Sin2x - 1 Cos2x
-	9 CIE 8 32 8 A9

	Date:
15	y"+y = 2xSinx -0
,,	
	GOLUTIONS
	$m^2 + 1 = 0$
	m=i,-i
	ye = C, Cosx +C2Sinx
	11 - (Dy RyKinx + (Cx+Dx)Sinx
	yρ = (2Ax+B) cos 2 _ Sinx (Ax2+Bx) + (2Cx+D) Sinx + Cos 2 (2+Dx)
7	4" = (2A) cosx - Sinx(2Ax+B) + [-(2Ax+B)Sinx - (Ax2+Bx) cosx]
	+[(2c)sinx +(2cn+D)cosx]+[(2cn+D)cosx -(cn2+Dx)sinx
	= 2Acosx - 2(2Ax + B)Sinx - (Ax 2+ Bx)cosx + 2C Sinx
	+2 (2(x+D) cosx - ((22+Dx)Sinx
	Now pudy y'p & y'p in ear():-
	()=> 2A(052 - 2(2Ax+B)Sinx - (4x2/Bx)(05x + (2CSinx)+
1	+2(2(2+D) 6082 - (C2+Dx) Sinx +(Ax2Bx) (059 +(C2+Dx) Sinx
-	$= 2 \times \sin x$ .
	=> Comparing sinx terms:
	=> $(-2(2Ax+B) + 2C - (Cn^2 + Dn) + (Cn^2 + Dx))Sinx = 2 \times Sinx$
	= 3 - 4Ax - 28 + 2C = 2x
	$\Rightarrow$ $-4A=2$
	A = -1/2 compaing cosn terms:-
	2A coss + 2(2(x+D) cosx = 0
	2A +4C2+20=0
	4Cn=0
-	C=0
	2A+2D=0
	2(-1/2)+20=0
	D=1/2
	-28+26=0
	-2B+2(0)=0
	B=0
	[ D= 0]

	Date:
-	16 = C, Cos x + C2Sinx.
	$gp = \left(-\frac{1}{2}x^2\right)\cos x + \left(\frac{1}{2}x\right)\sin x$
3	30,
	y = Ci Cosx +C2 Sinx - 1 x2 cosx + 1 x Sinx
L	2 2
-	
-	$y'' - 5y' = 2x^3 - 4x^2 - x + 6$
ŀ	LOLUTION8-
	$m^2 - Sm = 0$ $m = 5,  m = 0$
	yc=C1e5x + C2
	JC=CIE + C2
-	$yp = (Ax^{4} + Bx^{3} + (x^{2} + Dx))$
	$yp' = 4Ax^3 + 3Bx^2 + 2Cx + D$
	gp - zp - z - z - z - z - z - z - z - z -
	$y''_p = 12Ax^2 + 6Bx + 2C$
	Now putting yp, y'p & y'p in ear (1)
	$=(12Ax^2+6Bx+2C)-5(4Ax^3+3Bx^2+2Cx+D)=2x^3-4x^2-x+6$
	=>-20Ax3+12Ax2-15Bx2+6Bx+10Cx+2C-5D=2x3-4x2-x+6
	$-20A = 2 \qquad (12A - 15B) = -4 \qquad -10C + 6B = -1$ $A = -1/0 \qquad 12(-1/0) - 15B = -4 \qquad -10C + 6(14/45) = -1$
	A = -1/10 $B = 14/75$ $C = 53/250$
_	2(3)-0-6
	2(53) - 5D = 6 $D = -697/625$
	Yc= Ciesx+C2 , yp=-10x4+14 x3+53 x2-691 x.
2	Dc= C1e"+C2 1 JP- 10 75 250 625
	So SXIC -1 24+14x3+53x2-697 8
_	y= C1e5x + C2-1 x4+14x3+53x2-697 x
_	

_	
17-	$y''-2y'+5y=e^{2}\cos 2x$
	GOLUTION8-
	$m^2 - 2m + 5 = 0$
	m = 1 + 2i, 1 - 2i
	ye = e Ci Cos2x + Cz Sin2x
	un= en (Arcos 2x + Brisin2x)
	up = Axen Cos2x + Bne Sin2x
	NAU)
	4ρ = Ae Los 2x - 2x Sin 2x + A[n cos 2x] e + Be (sin 2x+2 (cos 2))
	+ R[252]22
	yp = Ae2 Cos2x - 2Ae2 nSin2x + Ae2 n Cos2x + Be2Sin2x
1	+2Benn cos2x +Benn sin2x.
1	
	y = [Ae 2 Cos2x - 2 Al 2 Sin2x] - 2[Ae 2 (Sin2x + 2n cos2x)
	+ H(212105x)e + Aer(COSIX-47510 X)+He (21 COSIX)
	+[Be2Sin2x +2Be2cos 2x]+[2Be2(cos2x-2xSin2x)
	+ (2B(n60s2x)e2) + [Be2(Sin2x+2x(os2x) + Be2(nSin2x)]
	yp = Ae Cos2x - 2Ae Sin2x - 2Ae Sin2x - 4Ae n cos2x
	-24en n Sin2x +Aen Cos2x -2Aen n Sin2x +Aen cos2x
	+ Be2 Sin 2x + 2Be2 Cos2x + 2Be2 Cos2x - 4Be2 2 Sin 2x
	+ 2Be2 2 Cos2x + Be2 Sin2x + 2Be2x Cos2x + Be2n Sin2x
	=> 2Ae Cos2x -4A e sin2x -3Ae n cos2x -4Ae nSio2x
	+28e2 Sin 2x +4Be2 Cos 2x -3Be2 n Sin 2x +4Be2 n Cos 2x.
1	put in question:
	=) (2Ae2 cos2x - 4Ae2 Sin2x - 3Ae2 2 cos2x -4Ae2x4in2x
	+2Be2 Sin2x +4Be2 cos 2x -3Be22 Sin2x +4Be22 652x
	-24e2cos2x +4Ae2nSinn -24e2x cos2x -2Be2Sin2x
	-4Ben 2 Cosly -2Ben x Sin 2x +5Axen Cos 2x +5Benngin2x
	$=e^{\pi}\cos 2x$



=) $3Ae^{2x} \cos x - 4Ae^{2x} \cos x + 2Ae^{2x} \cos x - 4Ae^{2x} \sin x$ $-2Ae^{2x} \sin x + 4Be^{2x} \cos x - 2Be^{2x} \cos x + 3Be^{2x} \sin x$ $-4Be^{2x} \sin x + 2Be^{2x} \sin x = e^{2x} (\cos x - 3\sin x)$ =) $Ae^{2x} \cos x - 2Ae^{2x} \sin x + 2Be^{2x} (\cos x - 3\sin x)$ Now comparing: $(A \cos x + 2B \cos x)e^{x} = e^{x} \cos x (-24 + B)e^{x} \sin x = e^{x} (\cos x - 3\sin x)$ $A + 2B = 1$ $A = 1-2B - 2$ $Put(3) in(2)$ $A = 1-2(-3+2A)$ $A = 1+6-4A$ $A = 1+6-4A$ $A = 1-1A$ $A =$		Date:
$-2Ae^{2x}Sinx + 4Be^{2x}Cosx - 2Be^{2x}Cosx + 3Be^{2x}Sinx$ $-4Be^{2x}Sinx + 2Be^{2x}Sinx = e^{2x}(Cosx - 3Sinx)$ $=) Ae^{2x}Cosx - 2Ae^{2x}Sinx + 2Be^{2x}Cos + Be^{2x}Sinx = e^{2x}Cosx + Be^{2x}Sinx = e^{2x}Sinx = e^{2x$	=> 3Ae2xCosx -4Ae2xCosx +	- 2Ae2x Cosx - 4Ae2x Sinx
$-4Be^{2x}Sinx + 2Be^{2x}Sinx = e^{2x}(\cos x - 3Sinx)$ $= Ae^{2x}Cosx - 2Ae^{2x}Sinx + 2Be^{2x}Cos + Be^{2x}Sinx = e^{2x}(\cos x - 3Sinx)$ $= Ae^{2x}Cosx - 2Ae^{2x}Sinx + 2Be^{2x}Cos + Be^{2x}Sinx = e^{2x}Cosx + 2Be^{2x}Sinx = e^{2x}Cosx + 2Be^{2x}Sinx = e^{2x}Cosx + 2Be^{2x}Sinx = e^{2x}Cosx + e^{2x}Sinx = e^{2x}Sinx = e^{2x}Cosx + e^{2x}Sinx = e^{2x}Sinx =$		
=> $Ae^{2x} \cos x - 2Ae^{2x} \sin x + 2Be^{2x} (\cos x) + Be^{2x} \sin x = e^{2x} (\cos x) \sin x$ Now company: $(A \cos x + 2B \cos x) e^{x} = e^{2x} (\cos x) (-24 + B) e^{2x} \sin x = -3e^{2x} \sin x$ $A + 2B = 1 \qquad B = -3 + 2A \rightarrow 3$ $A = 1 - 2B - (2)$ $Pit(3) in(2)$ $A = 1 - 2(-3 + 2A)$ $A = 1 + 6 - 4A$ $SA = 7$ $A = 7$ $A = 7$ $B = -3 + 2(7e)$ $B = -1/6$	-4Be2rSinx +2 Bo2x	Sinx = e2x (cosx-3Sinx)
Now compaing:- $ (A \cos x + 2B \cos x)e^{x} = e^{x} \cos x  (-24 + B) e^{x} \sin x = -3e^{2x} \sin x - 4 + 2B = 1 $ $ A = 1 - 2B - (2) $ $ Piut(3) in(2) $ $ A = 1 - 2(-3 + 2A) $ $ A = 1 + 6 - 4A $ $ SA = 7 $ $ A = 7/5 $ $ B = -3 + 2(7/5) $ $ B = -1/5 $		
Now compaing:- $ (A \cos x + 2B \cos x)e^{x} = e^{x} \cos x  (-24 + B) e^{x} \sin x = -3e^{2x} \sin x - 4 + 2B = 1 $ $ A = 1 - 2B - (2) $ $ Piut(3) in(2) $ $ A = 1 - 2(-3 + 2A) $ $ A = 1 + 6 - 4A $ $ SA = 7 $ $ A = 7/5 $ $ B = -3 + 2(7/5) $ $ B = -1/5 $	=) Ae2x Cosx - 2Ae2x Sin	+ 2Be2xCos + Be2xSinx = e (08x-35in)
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		
A + 2B = 1  A = 1 - 2B - 2  Put(3) in(2)  A = 1 - 2(-3 + 2A)  A = 1 + 6 - 4A  SA = 7  A = 1/5  B = -3 + 2(1/5)  B = -1/5  A = 1/5  B = -1/5  B = -1/5  A = 1/5  B = -1/5  B	V	
A + 2B = 1  A = 1 - 2B - 2  Put(3) in(2)  A = 1 - 2(-3 + 2A)  A = 1 + 6 - 4A  SA = 7  A = 1/5  B = -3 + 2(1/5)  B = -1/5  A = 1/5  B = -1/5  B = -1/5  A = 1/5  B = -1/5  B	(A COSX + 2B COSX ) = 2	OSX (-24+B) & Sinx = -3e2x Sinx
$Pit(3) in(2)$ $A = 1 - 2(-3 + 2A)$ $A = 1 + 6 - 4A$ $SA = 7$ $A = \frac{1}{5}$ $B = -3 + 2(\frac{7}{5})$ $B = -\frac{1}{5}$	7	B = -3+2A →3
$Pit(3) in(2)$ $A = 1 - 2(-3 + 2A)$ $A = 1 + 6 - 4A$ $SA = 7$ $A = \frac{1}{5}$ $B = -3 + 2(\frac{7}{5})$ $B = -\frac{1}{5}$	A = 1-2B - (2)	1 - 2 0 1 2 4 - 9 1 Cours 1 3 5 5
A = 1 - 2(-3 + 2A) $A = 1 + 6 - 4A$ $SA = 7$ $A = 1/5$ $B = -3 + 2(7/5)$ $B = -1/5$	Put(3) in(2)	
$A = 1 + 6 - 4A$ $SA = 7$ $A = \frac{1}{5}$ $B = -3 + 2(\frac{7}{5})$ $B = -\frac{1}{5}$	A = 1 - 2(-3 + 2A)	- 4/10/10/10/
SA = 7 $A = 7/5$ $B = -3 + 2(7/5)$ $B = -1/5$		
$B = -3 + 2(\gamma_5)$ $B = -1/5$		
[B = -1/5]	$A = \frac{7}{5}$	
[B = -1/5]	B=-3+2/Ve)	N I
$y = e^{x} \left( C_1 C_{0S} x + C_2 S_1 in x \right) + e^{2x} \left( \frac{1}{3} C_{0S} x - \frac{1}{3} S_1 in x \right) \int_{\mathbb{R}^2} dx$		
$y = e^{x} \left( C_1 C_{0S} x + C_2 S_1 in x \right) + e^{xx} \left( \frac{1}{5} C_{0S} x - \frac{1}{5} S_1 in x \right) \int_{A_1}^{A_2} dx$	So/	242222 1 2: 17
	y = en (Cicosx+Casinx)	+ e" ( + cos x - 1 sinx ) fue
	THE RESERVE OF THE PARTY OF THE	
The second secon		
		The second secon

1	1" +24 +4 - C Date:
J	1 J = 3 inx +3 cos 2x -
_	$\frac{11 + 2y + y = S_{inx} + 3\cos 2x}{30LUTION_{s-}}$
1	1000 110118-
	$m^2 + 2m + 1 = 0$
	m = -1, $-1$
	4= (1e2+C2 xe2
-	10 = A cosx + Bsinx , a
ط	1p = A cosx + Bsinx + CEOS2x + Dsin2x.
_	-A C. O.
7	p = -A Sinx + Blosx - 2(Sin2x + 20los2x
_	
y	p= -A cosx -Bsinx -4c cos2x -40sin2x:
	in the state of th
(	D=> (-A cos n - Bsinx - 4(cos 2x - 40 sin 2x) +
1	-2 Asin 2. +2B cos x - 46 Sin 2x +40 cos x) +
١	(ACOSX + BC)+
-	(A Cosx + B Sinx + C Cos2x + D Sin2x) =
	2111
=)	-40 cos 2x -40 Sin 2x - 24 Sinx +2B cos x -46 Sin 2x
_	+4DCos2x +C Cos2x +Dsin2x = Sinx +3Cosx
_	Comparing:
	-2A=1 $2B=0$ $-3D-4C=0$
	$A = \frac{1}{2}$ $8 = 0$ $-30 = 40$
	D=44-3-2
-	40-3C = 3 Now putting, value of C
	1(4c) - 3c = 3 $D = 4(-9/25)/3$
	(+3)
,	-16c - 9C = 3 $D = 12/25$
	+3
-	25/ - 6
_	-25C = 9
_	C =-9/25
1	1=C,e-2+C2ne-x-1 cosx-9 cos2x+12 Sin2x
-	2 25 25
-	(E

	Date:
5.000	A 2 44 4 6 4 6 1
1" +24'-244=16-(x+2)e4x	(1)
//	213311510
TOWTION 8-	
m2+2m-24=0	
m = 4, -6	
11 -1 24x +1 = -6X	
	1 44
$\frac{1}{10} = A + (Bx^{2} + Cx)e$ $\frac{1}{10} = O + (2Bx + C)e^{4x} + 4(Bx^{2} + C)e^{4x} +$	x)e <sup>44</sup>
P - 0 - C - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	194x, 16 (Bx2+(x))
$p = (28)e^{4x} + 4(28x + 6)e^{4x}$	1(UBn+C)e +10(DX 10)e
- 16/BX+Cn/e +0(20)	
Now put in 1: 16(Bx2+ (x)e4x +8(2Bx+C)e4x.	(20 4x), 2(2Bx+()e4x
16(Bx24 (x)e4x +8(2Bx+C)e4-	1(2Be") + 2(20x10)
+8(Bx2/+(x)e4x+8(2Bx+c)e4x +8(Bx2/+(x)e4x-24A-2	4(Bx2+(x)e
1000	1 ( ) -4x
10(2Bx+C)e4x+2Be4x-24A=1	6-(x+z)e
Nam Comparing:	
-24A = 16   $20Bx = -12$	1
$A = -\frac{2}{3}$ $B = -\frac{1}{20}$	municipality and
23+100=-2	
28 = -26-100	
B=-1-5C	
(-1/20) = -1 - SC	
[C = -19/100]	And the second s
	F 2 10 1 4X
4 = (1e4x + C, e-6x + (-2)-	12-192e
3/	(20 100)
	44

4"	- 6y" = 3 - Cosx
0	3 - cos x
6	ALL TOUR
17	OLUTION:
1	$m^3 - 6m^2 = 0$
,	1 - 0m = 0
-	m = 6,0,0
11 5	C. 1 C. 2 1 C 6x
de	C1 + C2x + C3e 6x
40=	Ax2+BCosx+CSinx
0;	24x -BSinx + CCosx
SP	20 - 9/
4"0	= 2A - BCOSN - CSINX
40	= 0 + BSinx - Ccosx
11	2001
1	40.
=>(0	+BSinn-Ccosx - 17A + 6BCosx +6CSinx = 3-Cosx BCOSX -CCosx +BSinx + 6CSinx = 3-Cosx
= 6	BCOSX - C Cosx + BSinx + 6 CC:
110	B cosx - C cosx + B sinx + 6 C sinx - 12A = 3 - cosx
(61	3-C) 405x = - 605x
	6B = C-1 B= (-1
	68 = C - 1 $8 = C - 1/6$ $6$
-	
	$B = (\frac{1}{37}) - 1$
1	B+6C=0
	$\left(\frac{C-1}{6}\right) + 6C = 0$ $B = -6$
	0/
	-1+376 = 0 37
	6
	37C= 1
	C=1/37
	[ - 731]
	$Jp = -\frac{1}{4}n^2 - \frac{6}{37}B\cos x + \frac{1}{37}Sin x$
	y 4 37 31
-	of the second second
4 =	$C_1 + C_2 \times + C_3 e^{6x} - x^2 - 6 B \cos x + 1 S \sin x$
10	4 37 37
	The state of the s
-	
8 1	하는 그 그는 그는 그 얼마를 들었다. 그는 그를 다 그 나를 다 보다 수 있다.

2 $y''' - 2y'' - 4y' + 8y = 6xe^{x}$ ADUTIONS $m^3 - 2m^2 - 4m + 8 = 0$ $m = -2$ , $2$ , $2$ $y = (Ax^3 + 6x^2)e^{2x}$ $y = (Ax^3 + 6x^2)e^{2x}$ $y = (2x^3 + 6x^2)e^{2x} + (3x^2 + 26x)e^{2x}$ $y = (2x^3 + 26x^2)e^{2x} + (3x^2 + 26x)e^{2x}$ $y = (2x^3 + 26x^2)e^{2x} + (3x^2 + 26x)e^{2x}$ $y'' = 2(2x^3 + 26x^2)e^{2x} + e^{2x}(6x^2 + 26x)e^{2x}$ $y''' = 4(6x^3 + 26x^2)e^{2x} + 6xxe^{2x} + 12x^2e^{2x} + 86xe^{2x} + 178e^{2x}$ $y''' = 4(6x^3 + 26x^2)e^{2x} + 66xxe^{2x} + 12x^2e^{2x} + 86xe^{2x} + 178e^{2x}$ $y'''' = 4(6x^3 + 2e^{2x})e^{2x} + 2e^{2x}(x^3) + 12x(2xe^{2x} + 2e^{2x})e^{2x} + 86xe^{2x} + 178e^{2x}$ $y'''' = 8x^3e^{2x} + 2e^{2x}(x^2) + 86(e^{2x} + 2e^{2x})e^{2x} + 24e^{2x} + 36x^2e^{2x} + 86e^{2x} + 24e^{2x} + 24e^{2x} + 36x^2e^{2x} + 86e^{2x} + 24e^{2x} + 24e^{2x} + 36x^2e^{2x} + 86e^{2x} + 24e^{2x} + 36x^2e^{2x} + 86e^{2x} + 24e^{2x} + 24e^{2x} + 36x^2e^{2x} + 86e^{2x} + 24e^{2x} + 24e^{2x} + 36x^2e^{2x} + 86e^{2x} + 24e^{2x} + 24e^{2x} + 36e^{2x} + 24e^{2x} + 24e^{2$
$\begin{array}{l} \textbf{ADUTION} \\ m^3 - 2  m^2 - 4  m + 8 = 0 \\ m = -2, \                                  $
$\begin{array}{l} \textbf{ADUTION} \\ m^3 - 2  m^2 - 4  m + 8 = 0 \\ m = -2, \                                  $
$m^{3} - 2m^{2} - 4m + 8 = 0$ $m = -2, 2, 2$ $y = C_{1}e^{2x} + xC_{1}e^{2x} + C_{3}e^{2x}$ $y_{p} = (Ax^{3} + Bx^{2})e^{2x}$ $y_{p} = (Ax^{3} + Bx^{2})e^{2x} + (3Ax^{2} + 2Bx)e^{2x}$ $y_{p} = 2(Ax^{3} + 2Bx^{2})e^{2x} + (3Ax^{2} + 2Bx)e^{2x}$ $y_{p} = 2(2Ax^{3} + 2Bx^{2})e^{2x} + e^{2x}(6Ax^{2} + 4Bx) + 2(3Ax^{2} + 2Bx)e^{2x}$ $y_{p} = 2(2Ax^{3} + 2Bx^{2})e^{2x} + 6Axe^{2x} + 12x^{2}e^{2x} + 8Bxe^{2x} + 178e^{2x}$ $y_{p} = 4A(3x^{2}(e^{2x}) + 12e^{2x}(a^{3}) + 12A(2xe^{2x} + 2e^{2x}) + 4A(e^{2x} + 2e^{2x})$ $y_{p} = 4A(3x^{2}(e^{2x}) + 12e^{2x}(a^{3}) + 12A(2xe^{2x} + 2e^{2x}) + 12B(2e^{2x})$ $y_{p} = 8Ax^{3}e^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36e^{2x}x$ $y_{p} = 8Ax^{3}e^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 8Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 8Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 8Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 8Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 8Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 8Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 8Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x + 36Ae^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 8Ax^{2}e^{2x} + 8Ax^{2}e^{2x} + 36Ae^{2x}x + 36Ae^{2x}x$ $p_{p} = 8Ax^{2}e^{2x} + 8Ax^{2}e^{2x} + 8Ax^{2}e^{2x} + 36Ae^{2x}x + $
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$yp = (Ax^{3} + Bx^{2})e^{2x} + (3Ax^{2} + 2Bx)e^{2x}$ $yp = 2(Ax^{3} + Bx^{2})e^{2x} + (3Ax^{2} + 2Bx)e^{2x}$ $yp = (2Ax^{3} + 2Bx^{2})e^{2x} + (3Ax^{2} + 2Bx)e^{2x}$ $yp = 2(Ax^{3} + 2Bx^{2})e^{2x} + e^{2x}(Ax^{2} + 2Bx)e^{2x}$ $yp = 2(Ax^{3} + 2Bx^{2})e^{2x} + e^{2x}(Ax^{2} + 2Bx)e^{2x}$ $yp = 2(Ax^{3} + 2Bx^{2})e^{2x} + 6Axe^{2x} + 12x^{2}e^{2x} + 8Bxe^{2x} + 178e^{2x}$ $yp = 4Ax^{3}e^{2x} + 4Bx^{2}e^{2x} + 6Axe^{2x} + 12x^{2}e^{2x} + 8Bxe^{2x} + 178e^{2x}$ $yp = 4A(3x^{2}(e^{2x}) + 12e^{2x}(x^{2})) + 8B(e^{2x} + 2e^{2x}) + 2B(2e^{2x})$ $yp = 8Ax^{3}e^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}n^{2} + 24e^{2x}n + 36e^{2x}n$ $yp = 8Ax^{3}e^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}n^{2} + 24e^{2x}n + 36e^{2x}n$ $yp = 8Ax^{3}e^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}n^{2} + 24e^{2x}n + 36e^{2x}n$ $yp = 8Ax^{2}e^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}n^{2} + 24e^{2x}n + 36e^{2x}n$ $yp = 8Ax^{2}e^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}n^{2} + 24e^{2x}n + 36e^{2x}n$ $yp = 8Ax^{2}e^{2x} + 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 186x^{2}e^{2x}$ $yp = 8Ax^{2}e^{2x} + 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 186x^{2}e^{2x}$ $yp = 8Ax^{2}e^{2x} + 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 186x^{2}e^{2x}$ $yp = 8Ax^{2}e^{2x} + 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 186x^{2}e^{2x}$ $yp = 8Ax^{2}e^{2x} + 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 186x^{2}e^{2x}$ $yp = 8Ax^{2}e^{2x} + 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 186x^{2}e^{2x}$ $yp = 8Ax^{2}e^{2x} + 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 186x^{2}e^{2x}$ $yp = 8Ax^{2}e^{2x} + 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 186x^{2}e^{2x}$ $yp = 8Ax^{2}e^{2x} + 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 8Bx^{2}e^{2x} - 8B$
$yp = 2(Ax^{3} + 8x^{2})e^{xy} + (3Ax^{2} + 2Bx)e^{xy}$ $yp = (2Ax^{3} + 28x^{2})e^{xy} + e^{2x}(6Ax^{2} + 48x) + 2(3Ax^{2} + 28x)e^{xy}$ $+e^{x}(6Ax + 28)$ $yp = 4Ax^{3}e^{xx} + 4Bx^{2}e^{2x} + 6Axe^{2x} + 12x^{2}e^{2x} + 8Bxe^{2x} + 178e^{2x}$ $yp = 4A(3x^{2}(e^{2x}) + 2e^{2x}(x^{3})) + 12A(2xe^{2x} + 2e^{2x}x)^{2} + 46(e^{2x} + 2e^{2x})$ $+4B(2xe^{2x} + 2e^{2x}(x^{2})) + 8B(e^{2x} + 2e^{2x}x) + 28(2e^{2x})$ $+4B(2xe^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}x^{2} + 24e^{2x}x) + 36(e^{2x}x)$ $+126e^{2x} + 6Ae^{2x}$ $-126e^{2x} + 6Ae^{2x} - 8Ax^{2}e^{2x} + 24Ax^{2}e^{2x} - 12Axe^{2x} + 8Bx^{2}e^{2x} - 166xe^{2x}$ $-126e^{2x} - 8Ax^{2}e^{2x} + 36Ax^{2}e^{2x} - 8Bx^{2}e^{2x} - 12Axe^{2x} + 8Bx^{2}e^{2x} - 166xe^{2x}$ $-126e^{2x} - 8Ax^{2}e^{2x} + 86x^{2}e^{2x} - 6xe^{2x}$ $-126e^{2x} - 8Ax^{2}e^{2x} + 86x^{2}e^{2x} - 12Axe^{2x} + 8Bx^{2}e^{2x} - 186xe^{2x}$ $-126e^{2x} - 8Ax^{2}e^{2x} + 86x^{2}e^{2x} - 12Axe^{2x} + 86x^{2}e^{2x} - 186xe^{2x}$ $-126e^{2x} - 8Ax^{2}e^{2x} + 86x^{2}e^{2x} - 12Axe^{2x} - 8Bx^{2}e^{2x} - 186xe^{2x}$ $-126e^{2x} - 8Ax^{2}e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x} + 86e^{2x} + 6Ae^{2x} - 6Ae^{2x}$ $-124xe^{2x} + 86e^{2x$
$y''p = 2(2Ax^{3} + 2Bx^{2})e^{4x} + e^{2x}(6Ax^{2} + 4Bx) + 2(3Ax^{2} + 2Bx)e^{4x} + e^{2x}(6Ax + 2B)$ $+e^{2x}(6Ax + 2B)$ $y''p = 4Ax^{3}e^{2x} + 4Bx^{2}e^{2x} + 6Axe^{2x} + 12x^{2}e^{2x} + 8Bxe^{2x} + 178e^{2x}$ $y'''p = 4Ax^{3}e^{2x} + 2e^{2x}(x^{2}) + 12e^{2x}(x^{3}) + 12e^{2x}(x^{2}) + 2e^{2x}(x^{2}) + 2$
$y''p = 2(2Ax^{3} + 2Bx^{2})e^{4x} + e^{2x}(6Ax^{2} + 4Bx) + 2(3Ax^{2} + 2Bx)e^{4x} + e^{2x}(6Ax + 2B)$ $+e^{2x}(6Ax + 2B)$ $y''p = 4Ax^{3}e^{2x} + 4Bx^{2}e^{2x} + 6Axe^{2x} + 12x^{2}e^{2x} + 8Bxe^{2x} + 178e^{2x}$ $y'''p = 4Ax^{3}e^{2x} + 2e^{2x}(x^{2}) + 12e^{2x}(x^{3}) + 12e^{2x}(x^{2}) + 2e^{2x}(x^{2}) + 2$
$y''' p = 2(2 A x^3 + 2 B x^2) e^{2x} + e^{2x} (6 A x^2 + 4 B x) + 2(3 A x^2 + 2 B x) e^{2x} + e^{2x} (6 A x + 2 B)$ $y''' p = 4 A x^3 e^{2x} + 4 B x^2 e^{2x} + 6 A x e^{2x} + 12 x^2 e^{2x} + 8 B x e^{2x} + 17 B e^{2x}$ $y''' p = 4 A [3 x^2 (e^{2x}) + 2 e^{2x} (x^3)] + 12 A [2 x e^{2x} + 2 e^{2x} x^2] + 6 A [e^{2x} + 2 e^{2x}]$ $+ 4 B [2 x e^{2x} + 2 e^{2x} (x^2)] + 8 B [e^{2x} + 2 e^{2x}] + 2 B [2 e^{2x}]$ $+ 4 B [2 x e^{2x} + 2 e^{2x} (x^2)] + 8 B [e^{2x} + 2 e^{2x}] + 2 B [2 e^{2x}]$ $+ 4 B [2 x e^{2x} + 3 6 A x^2 e^{2x} + 8 B e^{2x} x^2 + 2 4 e^{2x}] + 3 6 A e^{2x} x$ $+ 12 B e^{2x} + 6 A e^{2x}$ $+ 4 B e^{2x} + 8 A x^2 e^{2x} + 8 B e^{2x} x^2 + 2 4 B e^{2x} x + 3 6 A e^{2x} x + 4 B e^{2x} x + 4 B e^{2x} x^2 + 2 4 B e^{2x} x + 4 B e^{2x} x +$
$ \frac{1}{3} + 1$
$ \frac{1}{3} + 1$
$y_{p}^{"} = 4A[32^{2}(e^{1x}) + 2e^{1x}(n^{3})] + 12A[2xe^{2x} + 2e^{2x}n^{2}] + 6A[e^{2x} + 2e^{2x}]$ $+4B[2xe^{2x} + 2e^{1x}(x^{2})] + 8B[e^{2x} + 2e^{2x}n] + 2B[2e^{2x}]$ $y_{p}^{"} = 8Ax^{3}e^{1x} + 36Ax^{2}e^{1x} + 8Be^{2x}n^{2} + 24e^{2x}n + 36e^{2x}n$ $+126e^{1x} + 6Ae^{2x}$ $+36Ax^{2}e^{1x} + 36Ax^{2}e^{1x} + 8Be^{2x}n^{2} + 24Be^{2x}n + 36Ae^{2x}n + 12Be^{2x} + 6Ae^{2x} - 8Ax^{2}e^{1x} - 24Ax^{2}e^{1x} - 12Axe^{2x} - 8Bx^{2}e^{2x} - 18Bxe^{2x}$ $-4Be^{2x} - 8Ax^{2}e^{1x} - 8Bx^{2}e^{2x} - 12Axe^{2x} - 8Bx^{2}e^{2x} - 18Axe^{2x}$ $+89x^{2}e^{2x} + 8Be^{2x} + 6Ae^{2x} = 6Ae^{2x}$ $= > 24Axe^{2x} + 8Be^{2x} + 6Ae^{2x} = 6Ae^{2x}$ $= 24Axe^{2x} + 8Be^{2x} + 6Ae^{2x} = 6Ae^{2x}$ $= 8B + 6A = 0$ $= A = 1/4$ $= 8B + 6A = 0$ $= B = -3/6$
$y_{p}^{"} = 4A[32^{2}(e^{1x}) + 2e^{1x}(n^{3})] + 12A[2xe^{2x} + 2e^{2x}n^{2}] + 6A[e^{2x} + 2e^{2x}]$ $+4B[2xe^{2x} + 2e^{1x}(x^{2})] + 8B[e^{2x} + 2e^{2x}n] + 2B[2e^{2x}]$ $y_{p}^{"} = 8Ax^{3}e^{1x} + 36Ax^{2}e^{1x} + 8Be^{2x}n^{2} + 24e^{2x}n + 36e^{2x}n$ $+126e^{1x} + 6Ae^{2x}$ $+36Ax^{2}e^{1x} + 36Ax^{2}e^{1x} + 8Be^{2x}n^{2} + 24Be^{2x}n + 36Ae^{2x}n + 12Be^{2x} + 6Ae^{2x} - 8Ax^{2}e^{1x} - 24Ax^{2}e^{1x} - 12Axe^{2x} - 8Bx^{2}e^{2x} - 18Bxe^{2x}$ $-4Be^{2x} - 8Ax^{2}e^{1x} - 8Bx^{2}e^{2x} - 12Axe^{2x} - 8Bx^{2}e^{2x} - 18Axe^{2x}$ $+89x^{2}e^{2x} + 8Be^{2x} + 6Ae^{2x} = 6Ae^{2x}$ $= > 24Axe^{2x} + 8Be^{2x} + 6Ae^{2x} = 6Ae^{2x}$ $= 24Axe^{2x} + 8Be^{2x} + 6Ae^{2x} = 6Ae^{2x}$ $= 8B + 6A = 0$ $= A = 1/4$ $= 8B + 6A = 0$ $= B = -3/6$
$y'''_{p} = 8Ax^{3}e^{1x} + 36Ax^{2}e^{1x} + 8Be^{1x}n^{2} + 24e^{1x}n^{2} + 36Ae^{1x}n^{2} + 4Be^{1x}n^{2} +$
Put in equi:  =) $8Ax^{2x} + 36Ax^{2}e^{2x} + 8Be^{2x}n^{2} + 2yBe^{2x}n + 36Ae^{2x}n + 12Be^{2x} + 6Ae^{2x} - 8Ax^{2}e^{2x} - 2yAx^{2}e^{2x} - 12Axe^{2x}e^{2x} - 8Bx^{2}e^{2x} - 12Axe^{2x}e^{2x} - 8Bx^{2}e^{2x}e^{2x} - 12Axe^{2x}e^{$
Put in early:  =) $84x^{2x} + 364x^{2}e^{2x} + 83e^{2x}n^2 + 248e^{2x}n + 364e^{2x}n + 128e^{2x} + 64e^{2x} - 84x^2e^{2x} - 244x^2e^{2x} - 124x^2e^{2x} - 124x^2e^{2x} - 88x^2e^{2x} - 124x^2e^{2x} - 88x^2e^{2x} + 86x^2e^{2x} + 86x^2e^{2x} = 6xe^{2x}$ => $244xe^{2x} + 86e^{2x} + 64e^{2x} = 6xe^{2x}$ $244 = 6$ $86 + 64 = 0$ $4 = 1/4$ $86 + 6(1/4) = 0$ $6 = -3/16$
=) $8Ax^{2}x^{2} + 36Ax^{2}e^{2x} + 8Be^{x}x^{2} + 24Be^{x}x + 36Ae^{x}x + 12Be^{x}x^{2} + 8Ax^{2}e^{2x} - 24Ax^{2}e^{2x} - 12Axe^{2x}x^{2} + 8Bx^{2}e^{2x}x^{2} - 18Bxe^{2x}x^{2} + 8Bx^{2}e^{2x}x^{2} - 8Bx^{2}e^{2x}x^{2} - 8Bx^{2}e^{2x}x^{2} + 8Bx^{2}e^{2x}x^{$
$-48e^{2x} - 84 / 3e^{2x} - 88 / 2e^{2x} - 12 / 4x^{2} e^{2x} - 8 / 5x^{2} e^{2x} $ $+94 / x^{2} e^{2x} + 86 / x^{2} e^{2x} = 6xe^{2x}$ $=> 244 x e^{2x} + 86e^{2x} + 64e^{2x} = 6xe^{2x}$ $= 244 = 6 \qquad 86 + 64 = 0$ $= 4 = 1/4 \qquad 86 + 6(1/4) = 0$ $= 6 \qquad 6 = -3/6$
$+34x^{8}e^{2x} + 88x^{2}e^{2x} = 6xe^{2x}$ $=> 24Axe^{2x} + 88e^{2x} + 6Ae^{2x} = 6xe^{2x}$ $24A = 6 \qquad 86 + 6A = 0$ $A = 1/4 \qquad 8B + 6(1/4) = 0$ $B = -3/16$
=> $24A \times e^{2x} + 8Be^{2x} + 6Ae^{2x} = 62e^{2x}$ 24A = 6 $8B + 6A = 0A = 1/4$ $8B + 6(1/4) = 0B = -3/16$
$24A = 6  8B + 6A = 0$ $A = \frac{1}{4}  8B + 6(\frac{1}{4}) = 0$ $B = -3/16$
$24A = 6  8B + 6A = 0$ $A = \frac{1}{4}  8B + 6(\frac{1}{4}) = 0$ $B = -3/16$
$A = \frac{1}{4}$ $8B + 6(\frac{1}{4}) = 0$ $B = -3/16$
B = -3/6
$y = C_1 e^{2x} + C_2 \pi e^{2x} + (3 e^{-2x} + (\frac{1}{4}\pi^3 - \frac{3}{16}\pi^2)e^{2x})$
y = C1ex + C27ex + (3ex + (4x3 - 3x2)ex/
16 Aus

U''' 2 11	0.41
$\frac{3}{3} y''' - 3y'' + 3y' - y = x - 4e^{2}$	Date:
J=x-4e2	1
$m^3 - 3m^2 + 3m - 1 = 0$ $m = 1.1$	401103033
m = 1, 1, 1	
yc = Cie2 + xCze2 + x2(3ex.	
11 12	
$y_p = Ax + B + x^3 Ce^x$	
$yp = A + C[3x^2e^x + Cx^3e^x]$	
$y'\rho = A + 3(x^2e^2 + Cx^3e^2)$	
TERE +CN3ex.	
- 4" + 3 = [3 = 3 = 3]	
$y''_{p} = +3c[2\pi e^{2} + e^{2}\pi^{2}] + (3\pi^{2}e^{2})$ $y''_{p} = (\pi^{3}e^{2})/(\pi^{2}e^{2})$	+23e7
$y''p = Cn^3 e^n + 6Cn^2 e^n + 6Cne^n$	
$y'''p = C[3x^2e^2 + ne^n] + 6C[2ne^n + n^2e^n]$ $y'''p = Cn^3e^n + 9Cn^2e^n + 18Cne^n + 6Ce^n$	11150m. 227
4p = Cn3en + 9 Cn2en +1812mm	Facle the
TIOCHE +BCE	, , ,
Now put in all	
=Xx3e1+9(n2en+18xen+6cen -3cx8e	1-18 chren-18 (nen
+3A+9Cn3/en+3Cx3en-Ax-B-C	e3/23 = 2 -402
-Ax = 2 $3A - B = 0$ 60	27 = -4e2
+A = -1   3(-1)-B = 0   C	2 - 96
B=-3	=-4/6
	= -2/3
50,	
y= Cien+2Gen+22Genx-3-2	x3e2
	3
	(0
	The state of the s

1	Date:
24-	y" - y" - 4y' + 4y = 5 -e" + e2x -
	AOLUTION 8-
	$m^3 - m^2 - 4m + 4 = 0$
	m=-2,2,1
	yc = C1en+C2e2x + C3e2x
	Yp = A+ xBex + xCe2x
	$yp = B[e^n + ne^n] + C[e^{2x} + \lambda e^{2x}n]$
	y'ρ = Ben + Bxen + Cen + 2Cenn.
	yp= Be2 + Be2 + Bze2 + 2(e2x + 2(e2x + 4(e2x)
	y" = 2Be" + Bxe" + 4Ce2+4Ce2xx.
	37 200 3xc 1 100 4 100 X
	J"p = 2Bex + Bex + Bex + 8Cex + 4Cex + 8Cexx.
	y" = 38e" + Bxe" + 12(e" + 8(e2x)
	gp = soe + oxe +12ce + oce x.
	Now put in eq. ().
	=> 3Ben+Bxen+12(e2+86exn-2Ben-Bxen-4
	-46exx -4Be2-4Bxe2-4Ce2x-8/cexx+4A
	+ 48xex + 4/cnex -38ex + 4cex +4A = 5ex +ex
	=> -3Be1+4Ce2x +4A = 5-e1+e2x
	4A=5 $-3B=-1$ $4C=1A=5/4$ $B=1/3$ $C=1/4$
	A = 5/4   B = 1/3   C=1/4
,	50,
	y= (1en+(2e2x+ (3e2x+5+1 2e2x+1 2e2x)
2.	4 3 4

Date:\_\_