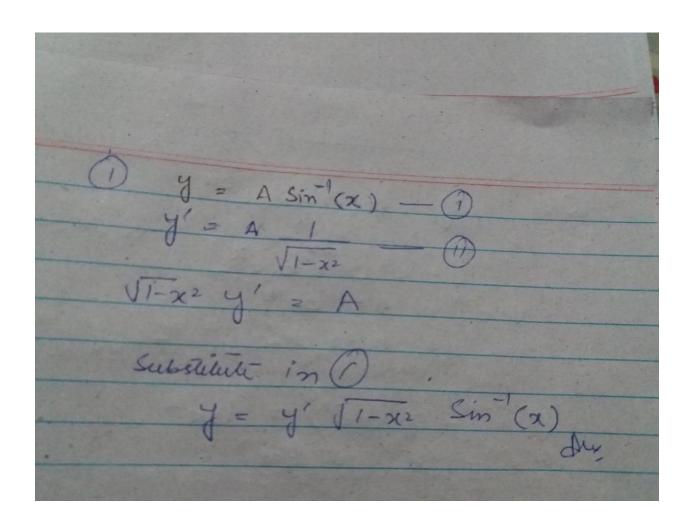
Answers of practice questions (week 1)



7= aex + beex diff w. & to x. y'. ex + y. (-ex) = bex y'e'x = bex ex[y'ex-yex] = b. y' e-2x - ye-2x = b. diff w. x to x y". = 2x + y'(-2e^2x) - [y'e^2x + y(-2e^2x)]=0 y"== 2x - 2 y'e= 2x - y'e= 2x + 2ye= 2x = 0 y"e-2x - 3y'e-2x + 2y =-2x = 0

2y dy = 2A x + B. - (1) diff again w. r to x 2[y'y'+yy"] = 2A - (ii) Again diff w. r. tox 2 [y"y + y y" + y y" + y y"] = 0 2[3y'y"+y]"]=0)=0 04 x2+y2+ 2gx+2fy+c=0 diff w. x to x 2x + 2y dy + 2g + 2f dy = 0 $\frac{digf}{2 + a[y'y' + yy''] + 2fy'' = 0}$ $\frac{2 + a[y'y' + yy''] + 2fy'' = -2fy''}{2 + 2yy'' = -2fy''}$ 2+2(7)2+277"=-2f

[4 y' y"+2 {y'y"+ y y"]] y"-[2+2(y')2+ 2yy"] y""=0 + 2 y/ y/2 + y/u/y/u/ 49'9"2+29'9"2-99"9" -29"-29"29" Qs $(x-h)^2 + (y-k)^2 = 0$ diff w. v to x 2(x-h) + 2(y-k) y' = 0 dig w. x tox a(1) + 2[y'y'+ (y-k)y"] = 0 $2+2y'^{2}+(y-k)y''=0$ $y-k=-2+-y'^{2}$ but in Equi

(x-b)= +2y' Pul values of (x-h) and (y-k) in Eg ? (1) $y'^{2}(3+y'^{2})^{2}+(2+y'^{2})^{2}=0$ Remanding Part of Example 4 Seed Sec20 do Tano seco (1+ Tan'o) do Tano Seco. + Seco Tan'o do Tand Tano coseco + seco Tamo do In tan 0 + Sec 0 + C Au