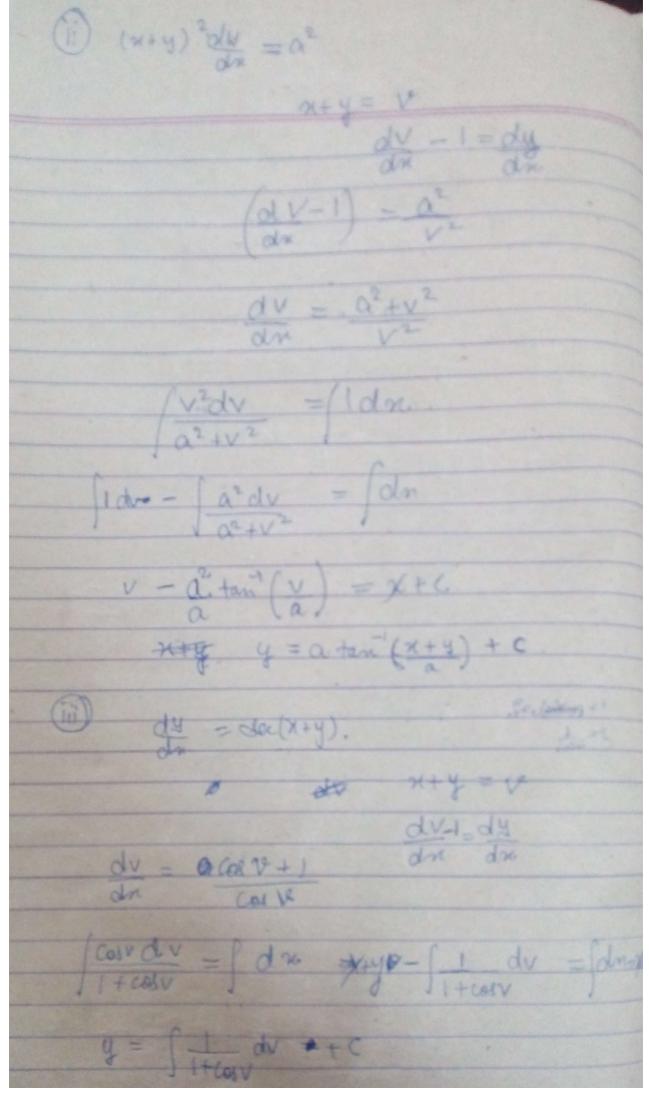
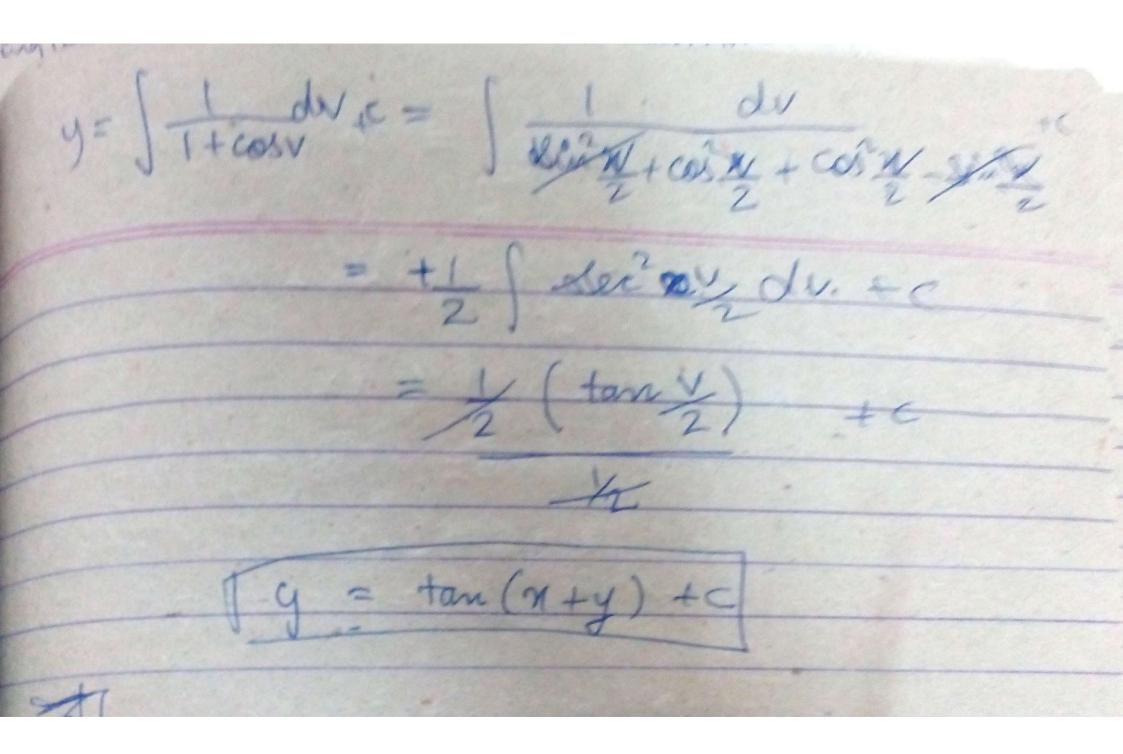


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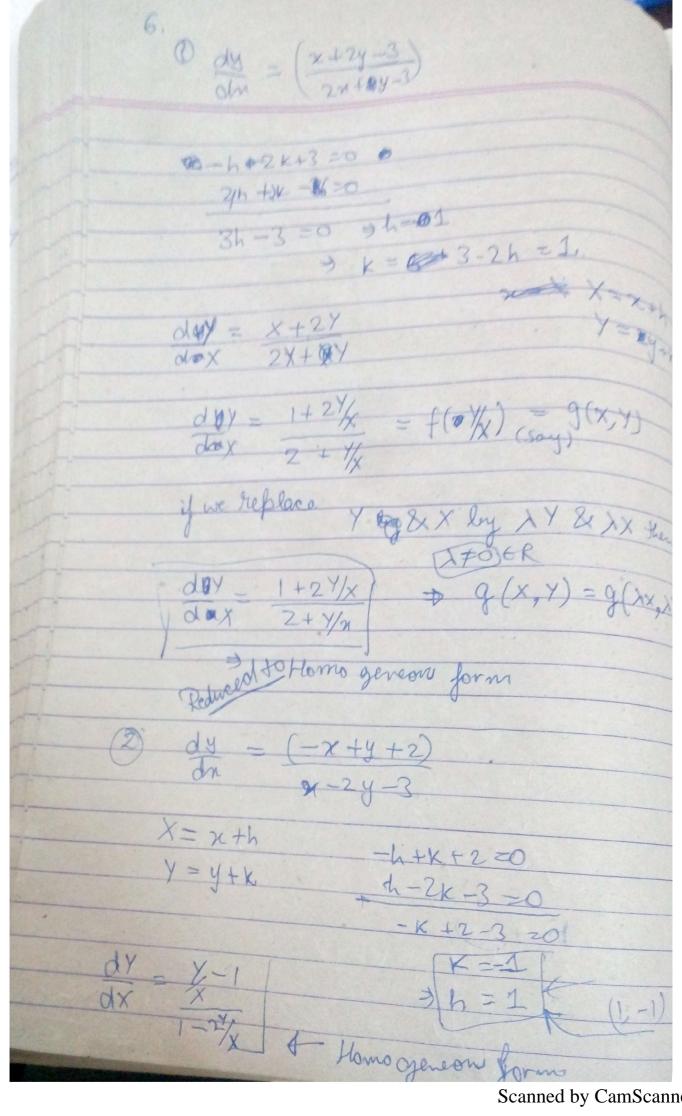


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(ydn + noly) xcol y = ysin y (noly yd (x dy -ydn) ydin(y) = (ydn + xdy) xeoxy - xy weny, dy -y win yn dx rycos (any) dn + Try sin (4) - x2 cos / dy = [ny cos / + 42 sing du = xy cos (1/2) + y sin (4/2)
dn xy siny = xi cos (4/2) Didling numerator & denominator by x2 dy - 4 (85 (4) + 42 cos 4 4 sh /2 - cos 4/2 dy = vt ndv Putting value of dy and y in 1 V + 21dV - Vx cos Vx + V2x2 8cm (Vx) My Sm(Kx) - cos (Nx) X dv = Vcos V + V din V - V ndv = 2 v cos v VSCHV-COS V

Very V- cosy dy = 2 dn VShov - cosv) dov = 28x (fan v 1) dv = 2 dr grotegliating both sides. $\int (\tan v - 1) dv = 2 \int dn$ fran volv - folv = 2 foly log|der = | - log | v | = 2 log | n | + log | c |. logster V = log/n'c) sec V = x2c Putting v = 4/2 dec(y) = cny ndy = y (log y-logn +1 dy = y (sog ya+) y = V => dy = V+ x dv Nonde = vloge +v for = for plogy = xc



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i)(4(1+ 1/2) + (0) y) = M TX + Dog m - X day = N and = 14 = - siny = an evert Sol I Mdn + [(terms of N, not containing n) ely = c { treatingy [y(1+ 1) + cosy d = + fo dy = C as constant > yn+ylogn + n cosy = c ii) xdx + ydy = ydx - xdy d(x2+42) = xdn+ydy d (tarily) = xdy-ydx RHS: = [1d (2+42) = d (tan (4/2)) 22+ y2 = 2 tan 1 4/x + C