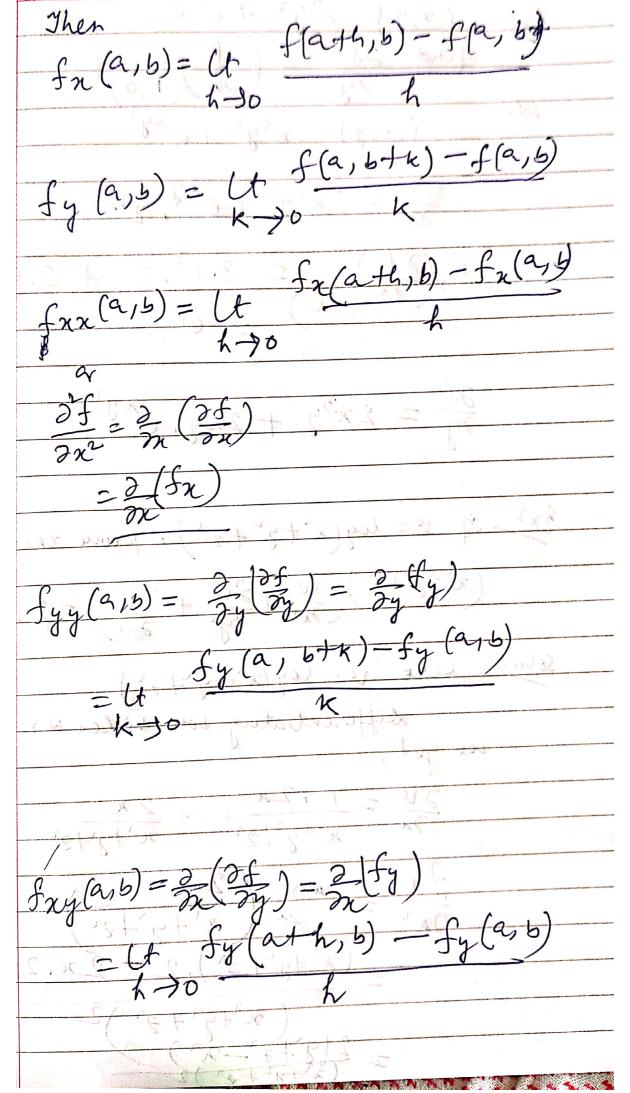
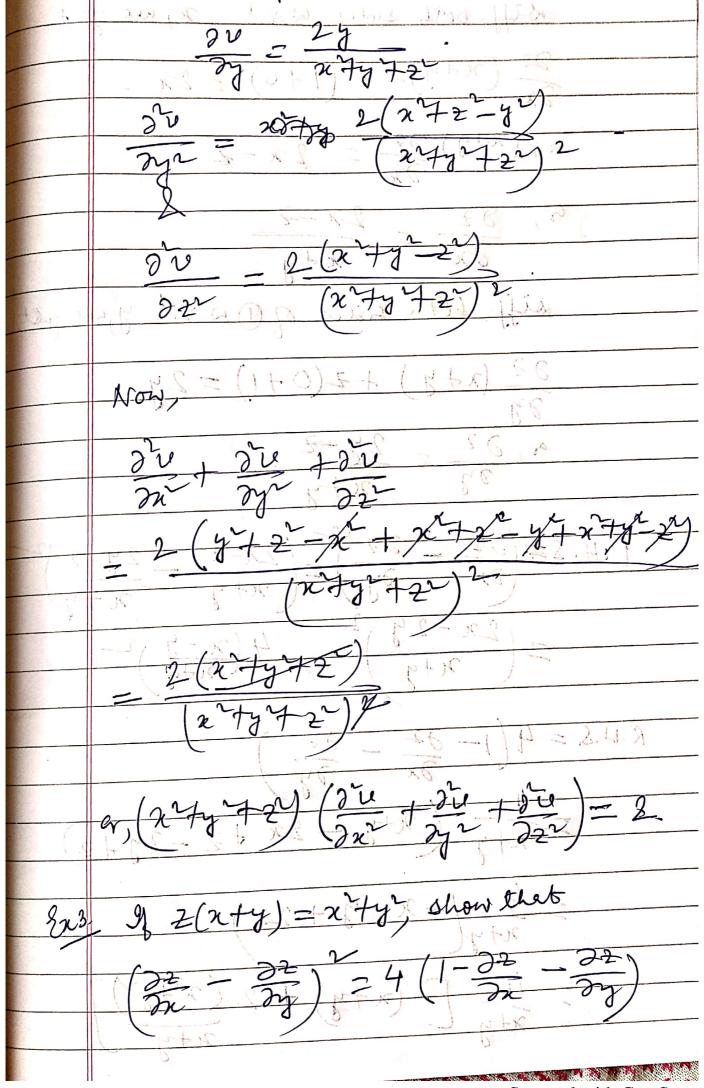
al a series and a
Date
Partial servatures.
Let == f(x,y) be a function of 2 varieties. x and y. If we keep y as constant
x and y. It we keep y as co & 2 vo
uary 2 alone, then 7 becomes a time of 2 only. Now, the derivative of the 2, treating y as constant, is called
partial derivative of 7 w. r. t re and denoted by 32 or of or cond
partial delivative of 7 W. V. to read
denoted by 22 or of or frage
24
Thus 22 = It fa
m fine ->to
f(x+8 n, y)-ea
= Ct
which were the state of the sta
Similarly,
Sp to the
$\frac{\partial z}{\partial z} = \int u$
of the production of the contraction of the contrac
= () () () () () () () () () (
= the f(n, y+8y) - f(n, y) = the sy - sy
Here In & Fy are also functions of
nand y and hence they can be
differentiated further w.r. t x &y.
Thus of a Care I also
2 (0 t) = 0 t a f
m m m de de a get a get a fina
of definition of a function $f(x,y)$.
of definition of a 11 1th 10/2 MI
I turnou Flus 8)



	Classe
	Page Page
fal	$f(x,y) = x^3y^2 + e^{xy^2}$ find $\frac{\partial f}{\partial x} \left(\frac{\partial f}{\partial x} \right) (1,0)$
	find 26 0 (26)
	my (200)
Soln	f(x,y) = x3y2 +exy2.
(3,4	1(21) = 27 + 6
	$\frac{2f}{2x} = 3x^2y^2 + e^{xy}y^2$
	on the go
(4,6)	a (2f) = 3.12.0
	$\alpha, (\frac{2f}{2n}) = 3.17.0 + 0.00$
	0.
	$\frac{\partial f}{\partial n} = 2x^3y + 2xy \cdot e^{xy^2}$
	m = 2x3y + 2xy, exg
	(8)
8x2:	91 18 - 12 (~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
	If v = loy(x ty +21), prove that
	$\left(x+y+2\right)\left(\frac{\partial u}{\partial x}+\frac{\partial u}{\partial y}+\frac{\partial u}{\partial z}\right)=2.$
	(22 + 22) = 2.
Soln.	Here re= log(x +y + 2)
	Acre 12 ray (x fy f 2)
	Willentistus both seday W.Y. +2
	use get,
多 烈	210 = 1.2x - 2x
	20 = 1.2x = 2x =
	2
	2
	$\frac{3\nu}{3\kappa^2} = \frac{\pi}{3\kappa} \left(\frac{2\kappa}{\kappa^2 + \gamma^2 + 2\kappa} \right)$
(0'14)	2
	$\frac{3\nu}{3\kappa^2} = \frac{\pi}{3\kappa} \left(\frac{2\kappa}{\kappa^2 + \gamma^2 + 2\kappa} \right)$
	$\frac{\partial v}{\partial x^2} = \frac{\pi \partial}{\partial x} \left(\frac{2x}{x^2 + y^2 + 2x} \right)$ $= \frac{x^2 + y^2 + 2x}{x^2 + 2x^2} \cdot 2 - 2x \cdot 2x$



	Date Pac
Soln	(inc. 2(244)2 24
7001	given 2(24y) 2 24yr soff both sides wirt. 2/4
	22 / march 1 2 march 2
	22 (xty)+2 (1+0) 222 H
	or, (244) 2= = 22-2
	The The Third Th
	9, 02 = 22-2.
	m sky
	siff. 60th Eides of Ownty
	22 (a+y) +2(0+1) = 2y
<u></u>	22 24 - 2.
	ar, de 2 Ly 2 100
	H. S= (22 - 22) = (22-2) = 2y-2
	(a) 24 2 nty nty
<u>**</u>	$\frac{2(2x-2y)}{2(2x+y)} = \frac{4(2x-y)^2}{2(2x+y)}$
	(1/5 +/5+/s)
	$S = 4\left(1 - \frac{\partial z}{\partial x} - \frac{\partial z}{\partial y}\right)$
	= 2x + 2 - 2y +3
	= 4 40/= x - 4 + 0/2 1 C) = 1
310	nfyl 22 All
	= 1 [(x+y) + 2 (x+y)