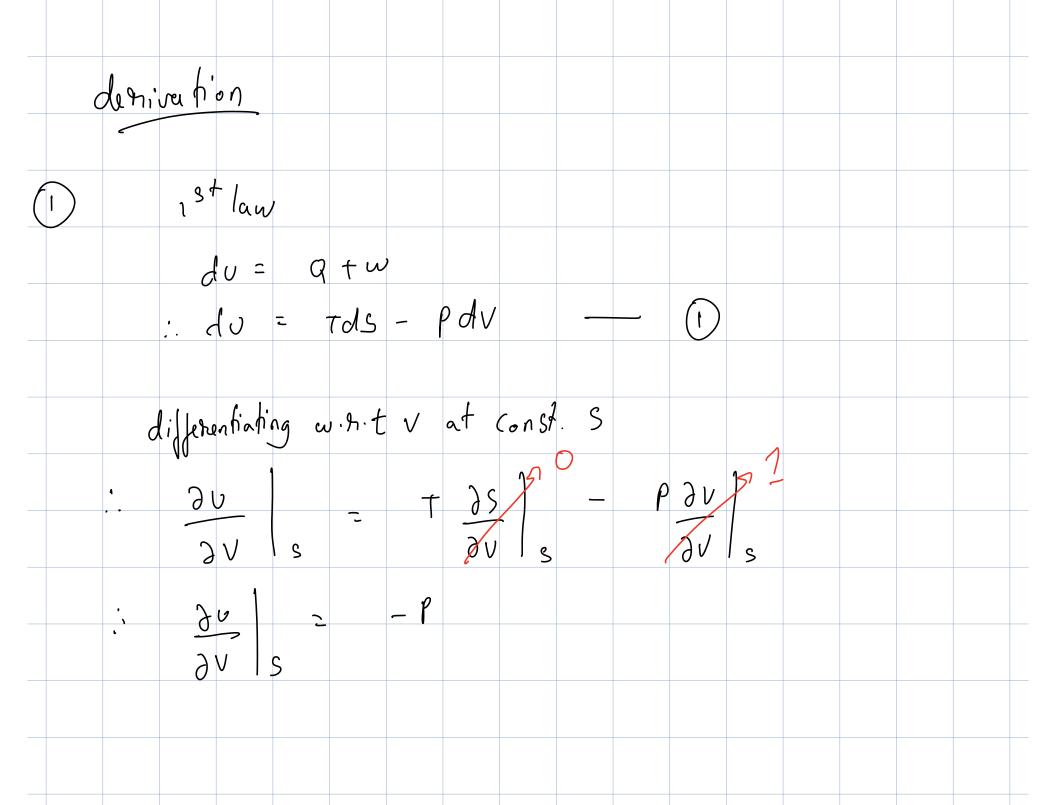
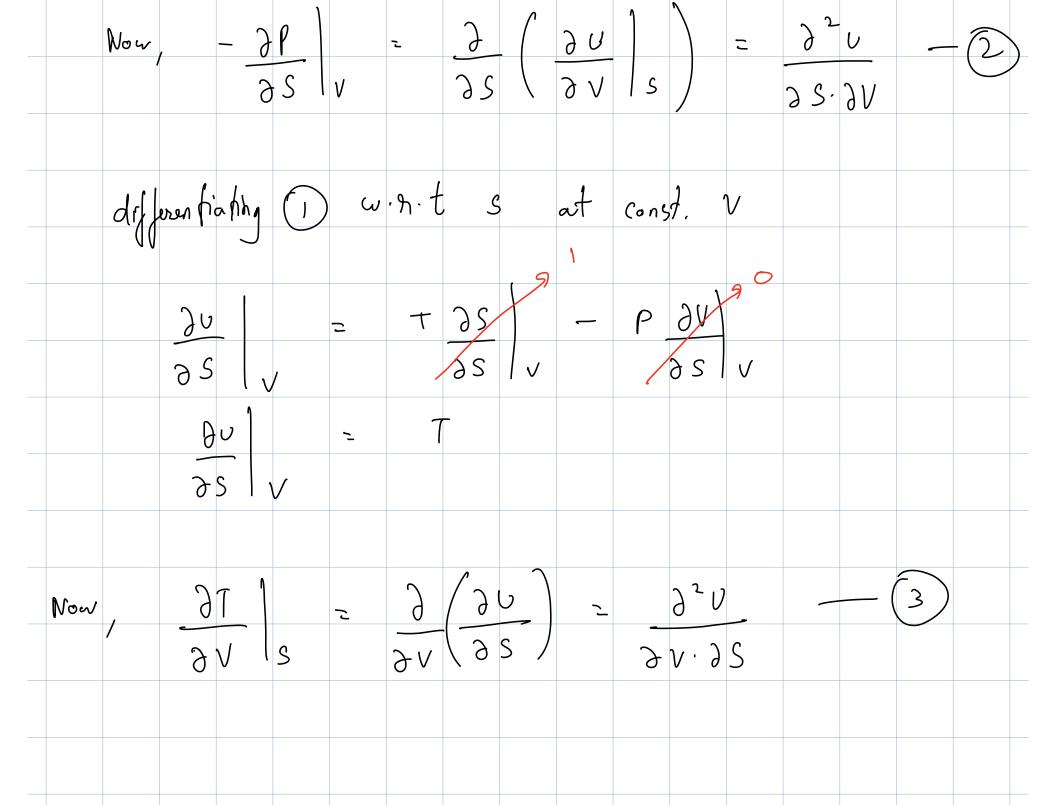
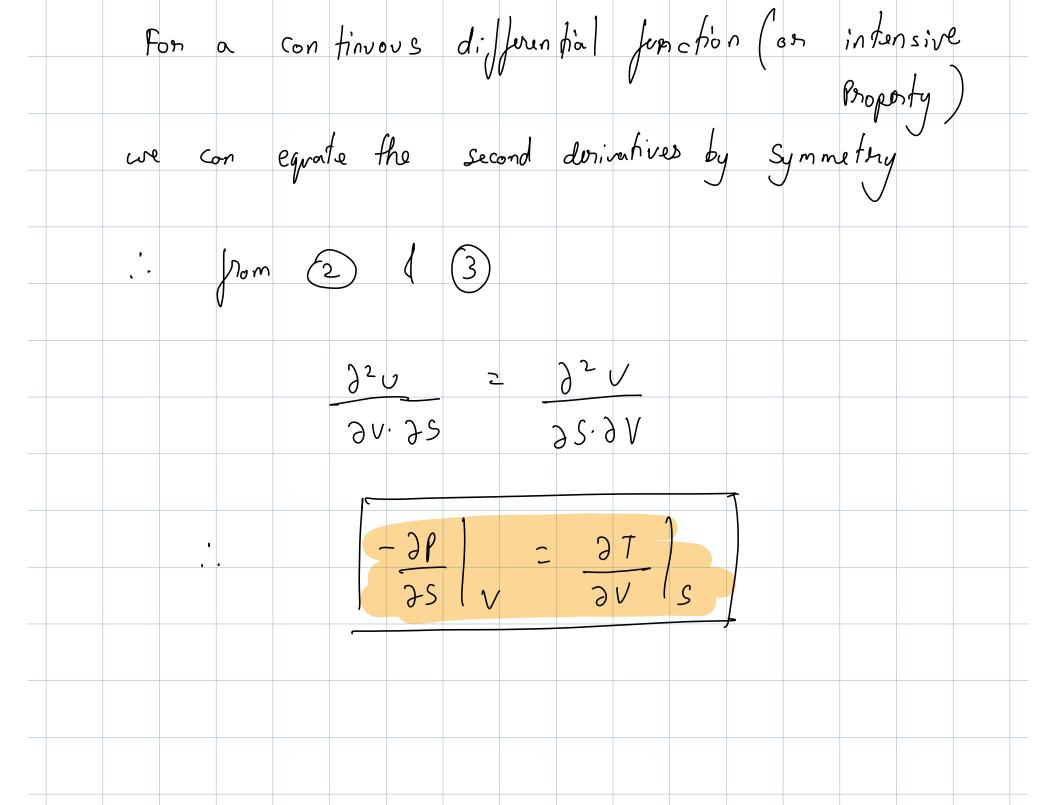


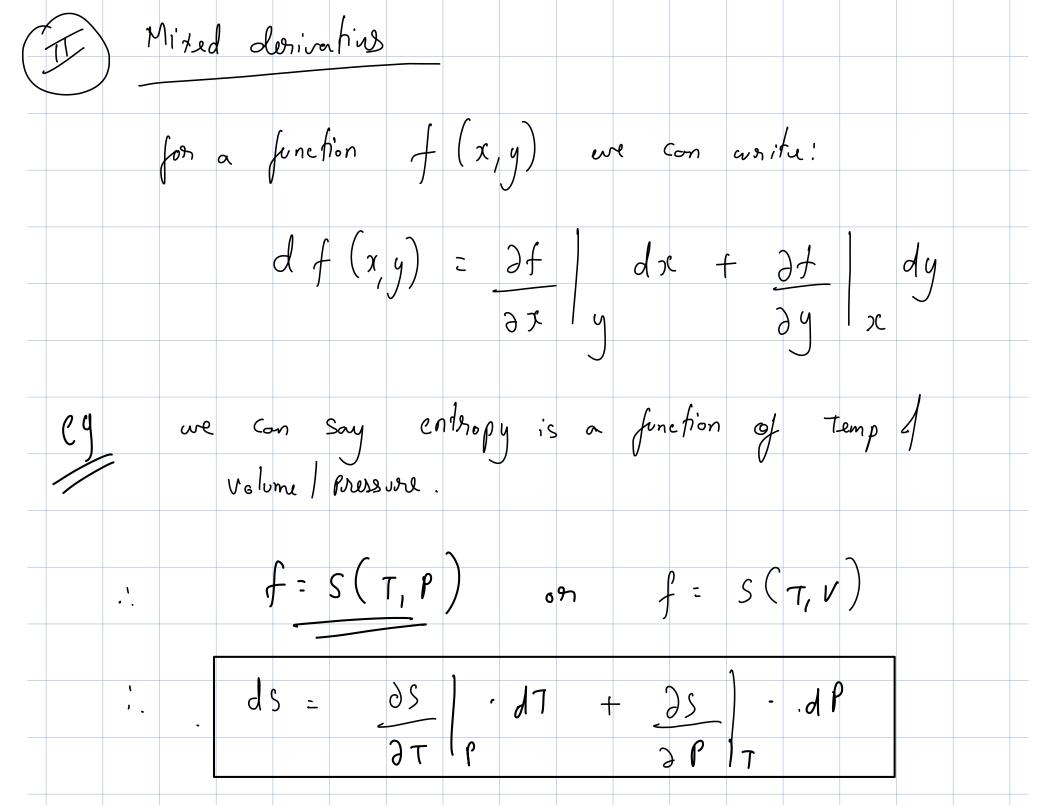
(I) Maxwell's	relations			
thermodynamics  Second derivatives  thermodynamic	These	are a set	of egg	vations in
thermody namics	which are	de misable	rom Sq.	nmetry of
second derivatives	and from	n the definition	ions of	the
thurmody namic	potentials.	V	0	
	l			

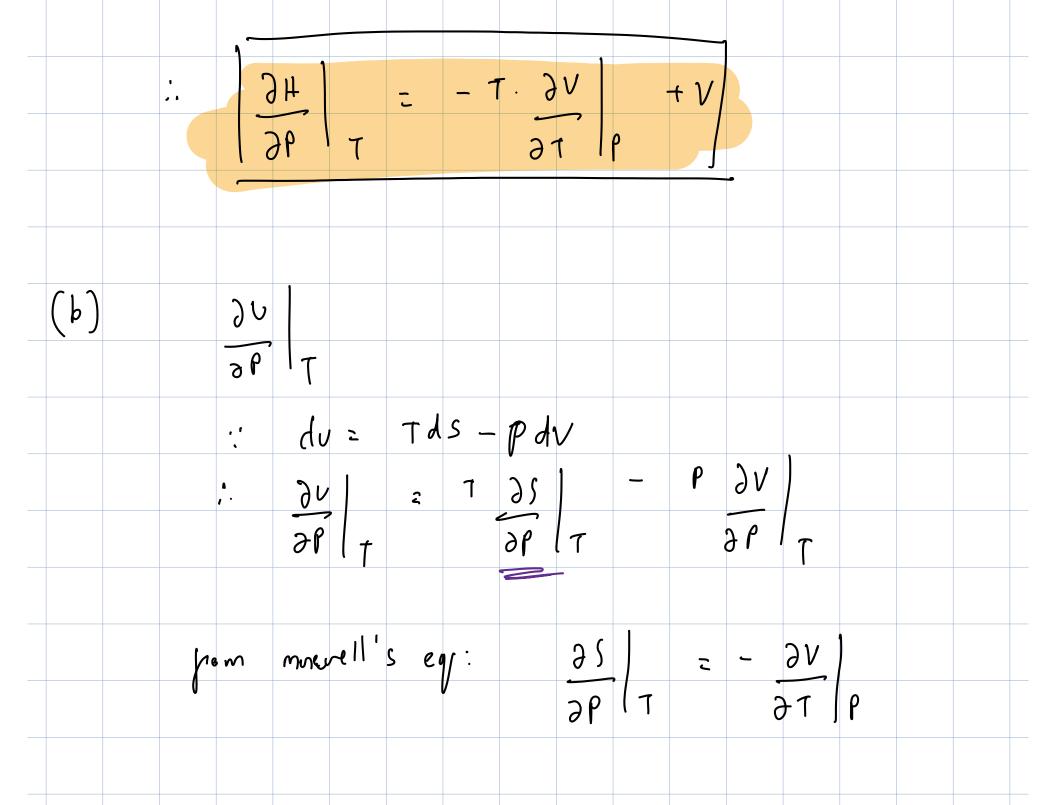
	ma rewell s egrations	demired from!
1	$\frac{-\partial P}{\partial S}  _{V} = \frac{\partial T}{\partial V}  _{S}$	clu = - PdV + Tds
2	$\frac{\partial V}{\partial 7} = \frac{-\partial S}{\partial P} = \frac{1}{7}$	dG= vdp-sdT
3	2 P = 25	dA = - PAV - Sd7
4	$\frac{\partial V}{\partial S} = \frac{\partial T}{\partial P} = \frac{\partial T}{\partial S}$	dH= TdS + vdP

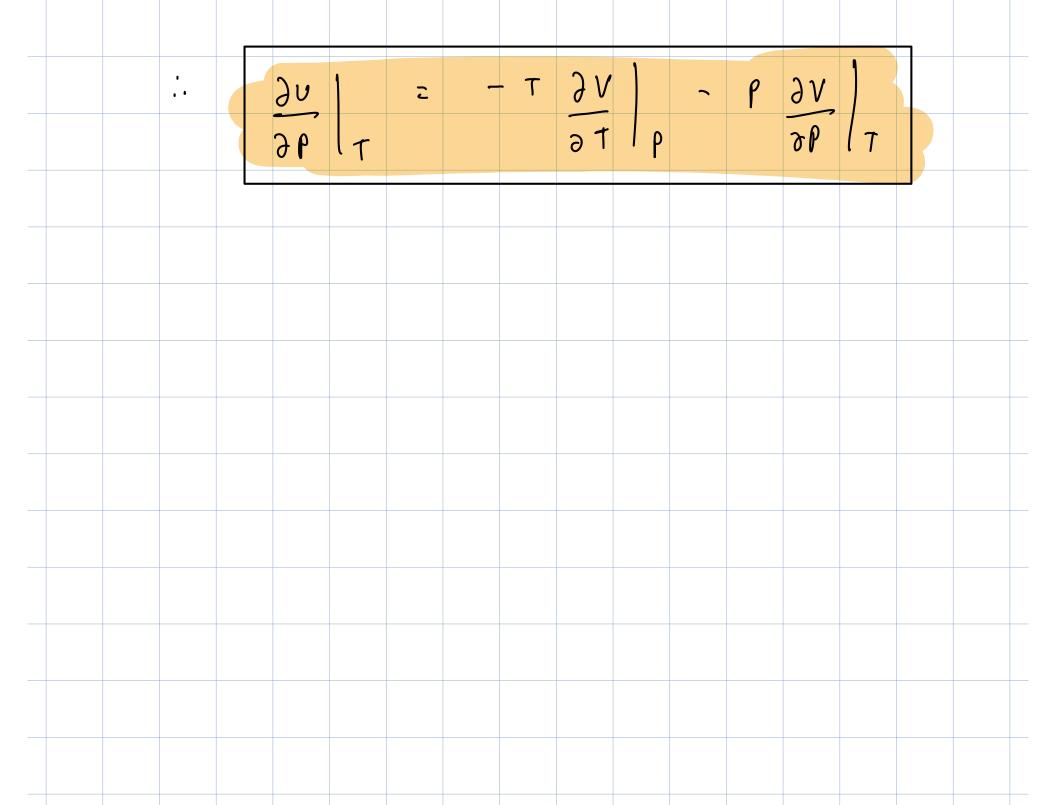












Q2_	Comparing H	he two	derivatives	
-)	3 H J - 3	) U   =	- T 2V T 2V	7
		PT	2T P 2T	1
			_ p 21	/ 1
			a de la companya de l	7 1
9 # ] -	- 207 =	V + P	20) _ (4)	7
JP (T	3P 7		2P/7	
	starting from	d H = 0	dut d (PV)	
	: d 1+ =	dv + d(P	PV)	

$$\frac{\partial H}{\partial P} = \frac{\partial V}{\partial P} + \frac{\partial (PV)}{\partial P} = \frac{\partial V}{\partial P} + \frac{\partial (PV)}{\partial P} = \frac{\partial V}{\partial P} + \frac{\partial V}{\partial P} = \frac{\partial V}{\partial$$

Q3_	37	ρ					
			Tds +====================================		† V	20 P	0
		3 H P		Cp - 2T	γ <u>1</u> Γρ	2 CP	
	•	Cρ =	T 25	ρ			

