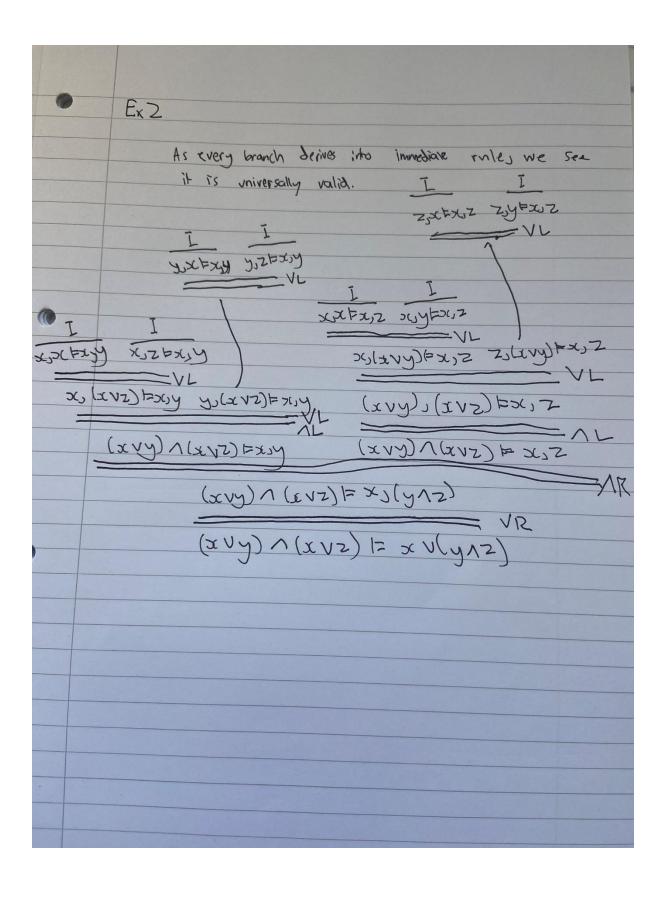
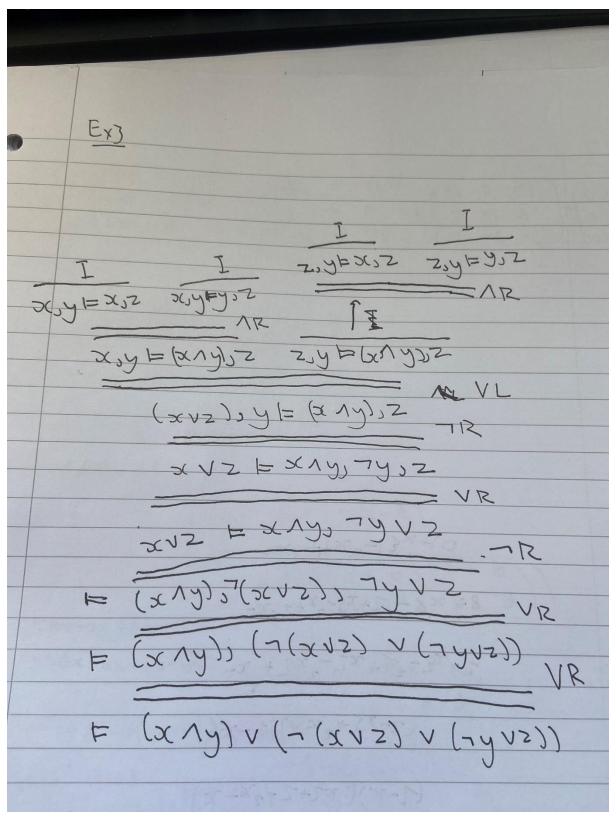
CL Tutorial 4

Q1) Derive ¬(a 1 b)= ¬a 1 -b
LHS contrapation contra position
7(56
7/Faal
(antiposition
KH
Tate obtacy
Tavable
Thus - (anb) = c
70776=
7a v7b = 7a v7b 7(anb) =7(anb) immediate
7a v 7b 1=7(anb) 7 (anb) 1= 7a v7b
i. Ta VTb CT(anb) and T(anb) CTaVTb
in the subset of
1. 7(anb) = 7av-b
- Dash





As every leaf is an I-rule we can see that it is Universally valid, and if a statement has the left-hand side empty, and is also valid, then it is a tautology. Thus, the statement is a tautology.