1. P -> Q

2. 70 3. 7P MT 11²

1 P -> Q

2. P

3. Q MP1,2

- R -> P VQ, R, -P HQ -> (R->PVQ) NRN-P -> Q 1. R->PVQ PI CONCUSA, 2. R P1 :. Q 4 PVQ MP1,2 5. Q 5D 314

2)1. P -> Q

2, 70

3. PVR

4 7P MT 1,2

5 R SD 3,4

3)1 PVQ

 $p \rightarrow R$

3, 7R

4. -P MT 23

5. Q 3D 19

S. QVS ADS

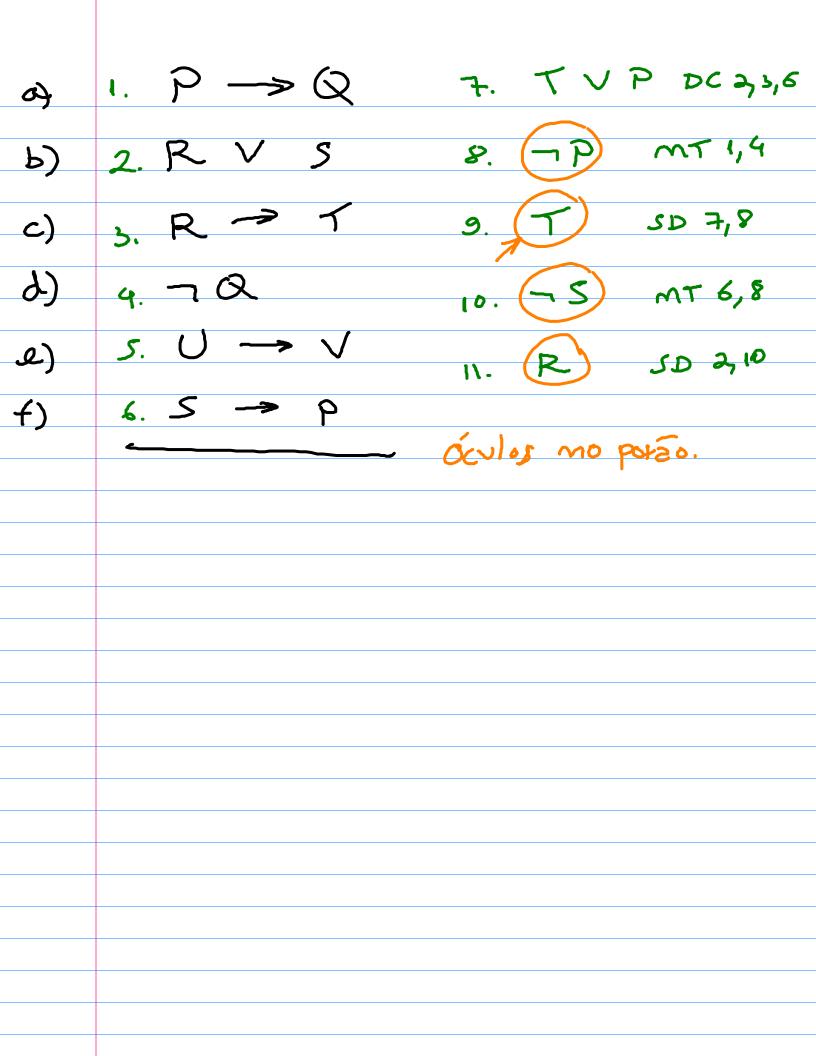
:. Q~S

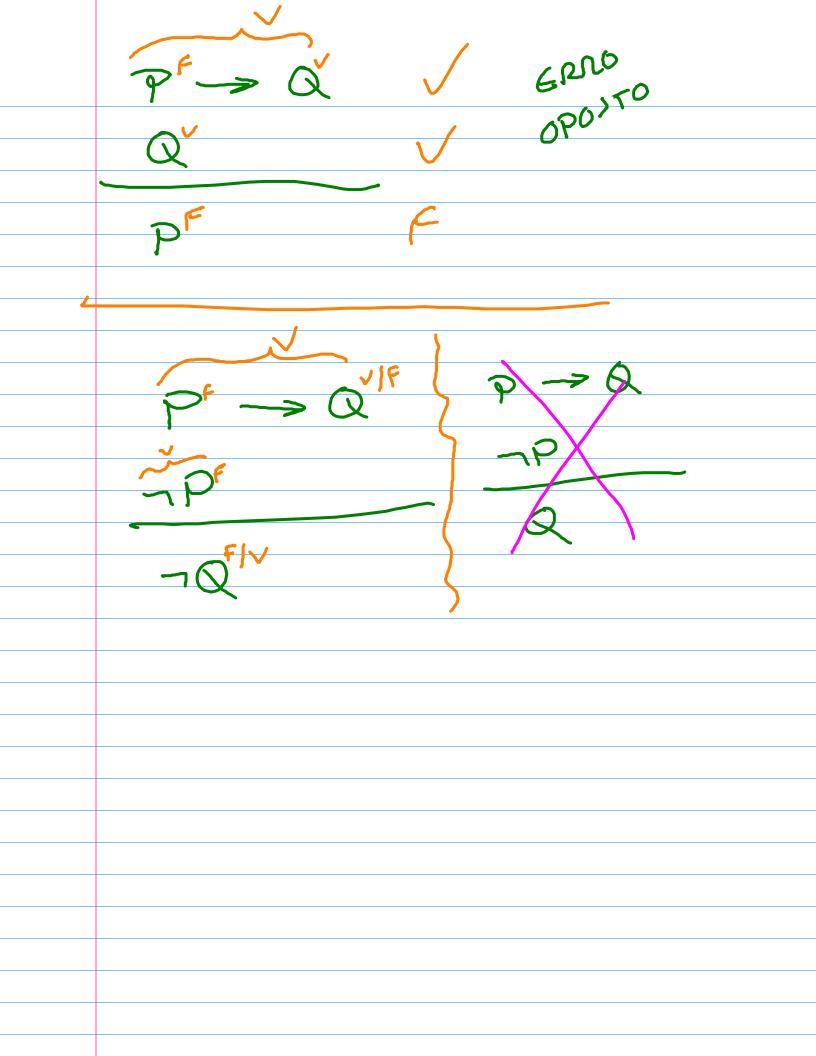
4. JPVR EQ2

5. ~P 50 314

6. Q SD115

7. QUS AD 6





mp 1,4 ∴A 8) 1. PV~Q 2. 7Q -> R Q M 24 6. P 5D 1,5 7. (S) mp 316 9) 1. PNQ 3. SAR -> 7 4. Q -> P s. P simpa 6. Q 7. S MP 113 8. R mp 4,6 SNR CONS 7,8 10. T MP 31 12) 1 (PVQ) -> (P-> 5~T)

P SIMP 2

4. PVQ AD 3

5. P -> 5 AT MP 1,4

5 5 NT MP 3,5

7. T SIMP 6