1. Lista 6 MAVE VOGE (De Ad NAME VE AVONNO LO
a) $\ell(p \rightarrow q) \ell = (p \rightarrow q) \vee n  c) \ell(p \rightarrow q) \ell(q \rightarrow n) \ell = (p \rightarrow n)$
$1.(p \rightarrow q)^A$ Ave $1.p \rightarrow q$ hip.
2.(p>g) V~ r Adigao1 2.9->~ hip.
A V B 3. A > ~ ~ Silogismo finatetico
Alexandra Aviantia
b) (7pn(q->n)) = 7p d) (p->(q->n), p) = q>n
D) $q \rightarrow r  f = q$ $1 7 \hat{\lambda}$
$a.(q \rightarrow n)$ $b \vee b \wedge v \wedge \lambda = (1 \rightarrow v \wedge \lambda, p \rightarrow (q \rightarrow n))$
나는 하는데 그는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하
3. 7 p Simplifeação 1 3. 9-> 2 Moder Ponens 1, 2
Library and Service AVIBACIE (AVAILANCE AND SERVICE)
e) \( (qvn ) \rightarrow \righ
$\frac{1. \left(q\sqrt{r}\right) \rightarrow q}{1. p \rightarrow q}$
2,77 B 10 N pryg ~ 1 V (prg) (2, 10 B) 7 ( 1 N R V D -) D 8
3. 7(qvn) Modus Tollens 1,2 3. (p=3q) 1 (n=>7s) Conjunção 1,2
(A > B) = 7(A A O B) = (42 A g 1 40)
g) 9(prg) v(2prn) - (2prn) = (prg)
$\frac{3 \cdot (p \wedge q) \vee (1 \cdot p \wedge p)}{1 \cdot (p \wedge q) \vee (1 \cdot p \wedge p)} = \frac{1}{1 \cdot (p \wedge q)}$
2 7 (7 ph n) = (7AV7)
3. (p19) 15. D 172
- 1 (p 1 q) <u>J.D. 11 a</u>

2.of(5 vt) -> (nng), (nng) -> 1p3 d) {p-> (nvnp), (nvnp) -> t}
1. (A) this A-R
- d.   r.19 -> p hip B -> ( r. v7 s) -> t
3. ( N + ) + 5 5.H 1, 2 3. p > t. 5.H 1, 2
The Time 138 in a 1 a call of the contract of
b) f(pesq) -> 7 (nns), 77 (nns) & dp->n, 79 ds
$1, (p \Leftrightarrow q) \rightarrow 7(n \land s)$ $1, p \rightarrow n \qquad \text{lip.}$
2.77(20) M.T 1,2 + + + 2.79->72 (lip. 01-4)
13(p⇔g) was 1 1 6 1 93.1 Av 7 g [ ] Zhplano-1 - q.1
4. rvas D. C 1,2,3 6
c) {sv(nt), 1st 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
c) {sv(nt), 1s} 1) fipvig, 77 g}  1. sv(nt)  2. 74
2.75
3. (nit) 5. D 1, 2 3. 7 5. D 1, 2
11 Floval - Loval Florant Floral Flor
8) 2p > (2219) 7(7219) V72, 79-> 2 (5) (1) (1) (1) (1)
$1. p \rightarrow (7r 3q) hip$
2.7(77B) V75 hip
3.79->3 hip
4.7p v 9 D.D 1,2,3
3. a) \( \left( \rho \gamma \rho \rho \rho \rho \rho \rho \rho \rho
1. (prg) -> s sap. 17. p->9 4.7p M.T 1,3
2. part hip. 12 - 12 - 7 - 2 5. 2 M. P 2 4
13. 9 Karachip. 13. 79 a 1 5 5 5
4. p19 Conj. 2,3
5. 5 M. P 1,4
1 20 M.P.3, 1 8 1 20 1 20 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2

d) $(p \land q, p \Rightarrow n, q \Rightarrow 0) \models n \land 0$ $(p \Rightarrow q, q \Rightarrow 77 \Rightarrow n, p \Rightarrow 77 \Rightarrow p \Rightarrow 77 \Rightarrow 17 \Rightarrow 17 \Rightarrow 17 \Rightarrow 17 \Rightarrow 1$	
1. pag 4. p simp1  2. p>n 5. n M. Pa, 4  3. q>n 6. p > 2. 5. H 1, 2  3. q>n 6. q simp 1  3. n > 7. n M. P 4, 6  7. n M. Pa, 4  8. 7 n M. T 3, 7  8. r n M. P 1) 2  2. p > (rqnn), p, n > q, n v t 3 = t  1. p > (rqnn), 5. (rqnn) M. P 1) 2  2. p 6. rq nimp 5  3. n > q 7. n Nimp 5  4. n v t 8. 1n M. T 13, 6  9. t 5. n My8  1. (pvq) > (p > (n x t)), pn n 3 = t vu  1. (pvq) > (p > (n x t))  2. p n n  3. t simp 1  4. t v u adieja 3  gláp > q, rq q (rp v rn) > 2 = n M. F > 2 n M. T 3, 4  2. rq 7. n M. P 3, 6  3. s > r  4. rp M. T 1, 2  3. (rp v rn) > n 3. s > n  4. rp M. T 1, 2  3. (rp v rn) > n 3. s > n  4. rp M. T 1, 2  4. rp M. T 1, 2  3. s > r  4. rp M. T 1, 2	dipagip->nig>s) = nis clep+qiq>77 ris>7rige=7D
3. p>n 5. n M. Pa, y 2. q>n 6. p>n 5. H 1, 2 3. q>n 6. q simp 1 3. n>n 7. n M. P 4, 6 7. n M. P3, c 4. p 8. 7 n M. T 3, 7  P. n N Conj. (3, 7)  P. n N M. P 1) a  2. p 6. 7 q n m 5  3. p 9 7. n N N P 1) a  P. t 5. p M, 8  P. t v u adicão 3  P. t v u adicão 3  P. n N P 2, 6  P. n N P 2, 6  P. n M. P 3, 6  P. n M. P	1. prq 4. p simp1 1, prq 5. q M. p1, 4
7. \( M.P.3 \) \(	
7. $A$	3.950 6,9 simp 1 3.5->7 7. 1 M. P. 4,6
Pro 15 (agar), p, a > q, av t) = t  1. p > (agar), p, a > q, av t) = t  1. p > (agar), 5. (agar) M. P 1) a  2. p 6. 1q amp 5  3. p 3 7. n rimp5  4. Av t 8. 1s M. T 13, 6  9. t 5. D M. B  1. (pvq) > (p > (ast)), pro not = t vu  1. (pvq) > (p > (ast))  2. p 2	7.5 M.P3,6 4.p 8.75 M.T'3,7
e) $q \rightarrow (7qAR), P_1A \rightarrow q_1AV + b \neq t$ 1. $p \rightarrow (7qAR), P_1A \rightarrow q_1AV + b \neq t$ 2. $p \rightarrow (6,7q), P_1A \rightarrow 0$ 3. $p \rightarrow q$ 4. $p \rightarrow q$ 7. $p \rightarrow (p \rightarrow$	
1. $p \rightarrow (\tau q \Lambda n)$ 5. $(\tau q \Lambda n)$ M.P 1) a  2. $p$ 3. $p \rightarrow q$ 7. $p \rightarrow (\tau q \Lambda n)$ 5. $p \rightarrow q$ 4. $p \rightarrow q$ 7. $p \rightarrow (p \rightarrow$	Alt interest in the second of
1. $p \rightarrow (\tau q \Lambda n)$ 5. $(\tau q \Lambda n)$ M.P 1) a  2. $p$ 3. $p \rightarrow q$ 7. $p \rightarrow (\tau q \Lambda n)$ 5. $p \rightarrow q$ 4. $p \rightarrow q$ 7. $p \rightarrow (p \rightarrow$	e) 9p->(7gnr),p,x->q, xvt)=t
2. p 6.7q nimp5  3. s → q 7 n nimp5  4. n v t 8. 15 MT 13,6  9. t 5.0 M/8  1. (pvq) → (p → (n n t)), pn n t t vu  1. (pvq) → (p → (n n t))  2. pn n  3. t nimp1  4. t v u adispo 3  glap → q, ¬q, (¬pv¬n) → n t t n l, n n, n → n t t n l, n n, n → n t t n l, n n, n n, n n, n n, n n, n n	1.p->(79AR) 5. (79AR) MEP 1) a
3. $s \rightarrow q$ 7. $r \rightarrow r$ 8. $r \rightarrow r$ 8. $r \rightarrow r$ 9. $t \rightarrow r$ 9. $t \rightarrow r$ 9. $t \rightarrow r$ 1. $(p \vee q) \rightarrow (p \rightarrow (n \wedge t))$ , $p \wedge r \rightarrow r \rightarrow r$ 1. $(p \vee q) \rightarrow (p \rightarrow (n \wedge t))$ 2. $p \wedge r \rightarrow r$ 3. $t \rightarrow r \rightarrow r$ 1. $p \rightarrow q$ 1. $p \rightarrow q$ 6. $(p \vee r \rightarrow r)$ 2. $r \rightarrow r$ 1. $r \rightarrow q$ 6. $(p \vee r \rightarrow r)$ 1. $(p \vee q) \rightarrow r$ 7. $(p \vee r \rightarrow r)$ 1. $(p \rightarrow r \rightarrow r)$ 1. $(p \rightarrow r \rightarrow r)$ 1. $(p \rightarrow r \rightarrow r)$ 2. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 4. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 4. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 4. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 4. $(p \rightarrow r \rightarrow r)$ 5. $(p \rightarrow r \rightarrow r)$ 7. $(p \rightarrow r \rightarrow r)$ 7. $(p \rightarrow r \rightarrow r)$ 8. $(p \rightarrow r \rightarrow r)$ 9. $(p \rightarrow r \rightarrow r)$ 1. $(p \rightarrow r \rightarrow r)$ 2. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 4. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 4. $(p \rightarrow r \rightarrow r)$ 5. $(p \rightarrow r \rightarrow r)$ 7. $(p \rightarrow r \rightarrow r)$ 9. $(p \rightarrow r \rightarrow r)$ 1. $(p \rightarrow r \rightarrow r)$ 2. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 4. $(p \rightarrow r \rightarrow r)$ 5. $(p \rightarrow r \rightarrow r)$ 7. $(p \rightarrow r \rightarrow r)$ 8. $(p \rightarrow r \rightarrow r)$ 9. $(p \rightarrow r \rightarrow r)$ 1. $(p \rightarrow r \rightarrow r)$ 1. $(p \rightarrow r \rightarrow r)$ 1. $(p \rightarrow r \rightarrow r)$ 2. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 4. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 4. $(p \rightarrow r \rightarrow r)$ 5. $(p \rightarrow r \rightarrow r)$ 7. $(p \rightarrow r \rightarrow r)$ 9. $(p \rightarrow r \rightarrow r)$ 1. $(p \rightarrow r \rightarrow r)$ 2. $(p \rightarrow r \rightarrow r)$ 3. $(p \rightarrow r \rightarrow r)$ 4. $(p \rightarrow r \rightarrow r)$ 5. $(p \rightarrow r \rightarrow r)$ 6. $(p \rightarrow r \rightarrow r)$ 7. $(p \rightarrow r \rightarrow r)$ 9.	에게 보고 있는데 그런데 가장 사용하다 되었다면 하는데 다른데 가장 다른데 다른데 그렇게 되었다면 보고 있다면 하는데 그렇게 되었다면 그런데 그렇게 되었다면 그렇게 되었다면 하는데 그런데 그렇게 되었다면 하는데 그렇게 되었다면 하는데 그렇게 되었다면 그렇게 그렇게 그렇게 되었다면 그렇게
9. t 5. N 4,8  9. t 5. N 4,8  1. (pvq) -> (p -> (x x t)), px 2 = t vu  1. (pvq) -> (p -> (x x t))  2. px 2  3. t xmp1  4. t v u adispo 3  9. f p>q, = q, (7pv=n) -> 3 = x l) {p>xx, p, x>x} = 7x  1. p>q  6. (1pv=n) adjoor 45  1. p>q  2. 7q  7. x M. P 3,6  2. p  5. 7x M. T 3,4  3. (7pv=n) -> x  4. 7p M=1,2	3. Day FORT Drimp 5
9.t 5.D 4,8  [] {(pvq) -> (p -	4. svt 8,75 6 MAT 13,6
f(pvq) -> (p > (n n t)), pn n = t vu 1. (pvq) -> (p > (n n t)) 2. pn n 3. t nimp1 4. t v u adição 3   f p > q, -1 q, (-1 pv -1 n) > 1 = n   1   p > 1 n, p, n > n = n   1   n   n, p	9. t 5, b 4,8
1. (pv q) -> (p > (	3-1021-5-A-12 3.7\$ 5.A.1.6.
1. (pv q) -> (p > (	1) 5(pvq) -> (p ->
3. t simp1  4. t v u adição 3   gláp→q, ¬q, (¬p, ∨¬n) → s } = s l) {p→n, p, s > r} = ¬s  1. p→q  6. (¬p, ∨¬n) advão 45 1. p→n 7. ¬n M. P 1, 2  2. ¬q  7. ~ M. P 3, 6  3. (¬p, ∨¬n) → s  4. ¬p M=1, 2  4. ¬p M=1, 2	
3. $t \sim 1$ 4. $t \vee u \sim adisper 3$ $adisper = a \sim 1$ $adisper = a$	
glap→q, ¬q, (¬ργ¬π) → λβ = Λ λ) ερ»¬π, ρ, λ»λβ = ¬λ 1. ρ» q 6.πρν¬π) advis 45 1.ρ»¬π 4. ¬π M. P 1, δ 2. ¬q 7. Λ M. P 3,6 2. ρ 5. ¬Λ M. T 3,4 3. (¬ρν¬π) » λ 3. λ» λ 4. ¬ρ M. F 1, δ	3. t simp 1
glap→q, ¬q, (¬ργ¬π) → λβ = Λ λ) ερ»¬π, ρ, λ»λβ = ¬λ 1. ρ» q 6.πρν¬π) advis 45 1.ρ»¬π 4. ¬π M. P 1, δ 2. ¬q 7. Λ M. P 3,6 2. ρ 5. ¬Λ M. T 3,4 3. (¬ρν¬π) » λ 3. λ» λ 4. ¬ρ M. F 1, δ	1, tvu adição 3
2.79 7. DM. P3,6 2.p 5.70 M.T 3,4 3. (7p v7r) -> D 3. S->r 4.7p M=1,2	LAND PYARM
2.79 7. DM. P3,6 2.p 5.70 M.T 3,4 3. (7p v7r) -> D 3. S->r 4.7p M=1,2	18 in the first of the second
2.79 7. DM. P3,6 2.p 5.70 M.T 3,4 3. (7p v7r) -> D 3. S->r 4.7p M=1,2	9/2000 10 10 10 10 10 10 10 10 10 10 10 10
2.79 7. DM. P3,6 2.p 5.70 M.T 3,4 3. (7p v7r) -> D 3. S->r 4.7p M=1,2	1. p->0 6. (pv7p) adicio 45 1. p->7p 4.7p M. p 1.2
3. (7pv7n) -> n 3. x-> n	
4.7p M71,2	
The state of the s	

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Lista 7.

1) Construe as deducies

d) \( \left( \left( \rightarrow \right) \right) \rightarrow \right( \right) \right) \rightarrow \right( \right) \right) \right) \right( \right) \ri
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