Temas - LC 1. a) (P=>Q) A TQ ATP id) Doc8 Q = True Adevenot = (P=> Q) ADQADP ~ Fals,

deci expresia este nevolide. Dace P= Fols ni Q= fols atunci (1= >Q) 17Q17PNA.

deci expressa este odisfialile. FND: 1P17Q Para (TPARA) 1116) (2PVQ) 1 2Q) 12P ((181-a) V(ana)) = 18 (2812a) 178 = (1802P) N(2802a) = 1P 1 (2PA 2Q) - 7P By Eng Dr & = nPnnQ

FNN: $\gamma p_1 \gamma Q$ FNN: $\gamma p_1 \gamma Q$ FNC: $\gamma p_1 \gamma Q$ (P=>Q) => ((Q=>S)=>((p+Q)=>R)) == (E, Q=>S)

	1	;)					+	1					
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ii) FNS: 7 (QASA 7R)

7 7Q MISVR

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() n(P=>Q) as ((PVQ) 1(-P=>Q)) (iii) 2(200) as (PUQ) 16(P) V Q)) (PN 7Q) (PVQ) 1 (PVQ)) (Prop)es (PVQ) ((Pn,Q) => (PvQ)) ~ (Pn,Q) => (Pn,Q) (7(P120) V (NO)) 1 (7(PVQ)V (P12Q)) ((SPVQ)V(PVQ)) A (= + (PA)Q)V(PA) (TRUPUQ) A (TQA (TRUP)) QAIQ= IL P=>Q | 7(P=) 0 | P | 7P=>Q | (PVQ) 1(7P=>Q | Exp. FND. (7P17Q) i) meralida, religiolate. TU: FND APARQ FNC= 78179

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(vi)

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d) Pag (Para) (> (P-10)) (ii) pe> Q ~ (p=>Q) ~ (Q=>Q) ~ (pevQ) ~ (2Q0) (1PUQ) n (2QUP) (=> PAQ. ((2PUQ) n (2QUP) => (PAQ)) n (2PUQ) n (2QUP)) (1/(6 Pra) ~ (2000)) v (Pra) / ~ (2 (Pra) v (hera) ~ (2000)) ((PARQ)V (QAP) } V (PAQ)) A (GEVIQ) V (NOVQ A (DQUP)) ((P17Q) v(are)) ~ ((2P2Q)) v (6PVQ) (1QUE)) (PM(QViQ)) ~ ((PMQ) ~ ((PMQ) ~ (QMP)) PA ((2PM2) V (2PVQ)) A (2012) V (2017)) ii) P Q P = 20 P = 20 7 (P = 270) Exp.

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2)0/6P=>(QAR))=>((QVAR)Q>P) (space (16P) V (Q1R) => ((QV7R)=>P) A P=> (QV7P)) (ru(Q12)) => ((rQ1e)UP) r frev (QV rp)) Erp= (7P1) (PV(QAR))=> ((PV(-QAR)) A (-PVQ)) TPU(QAR) & U ((PU(TANR)) A (TOVA)) (PA (TONP)) V ((PV (TONR)) A (TPVQ)) (2010) V ((PV2Q) N (PVR) N (2PVQ)) FMS. (TPAR) V (PV(TQAR) A (TPVQ)) FNEZAP. FNC: (PN(PU(DAR)N(DAQ))) N (DQV) k) (PV-QV(RC-3))e> (S AQ) (PURQ V ((2=>S) N (S=>R)) => (SNQ) (PURQ) U (FRUS) n (rSUR) (SAQ) (PV2Q) ((7RVS) 1 (SUR) (2) (S1Q) (orus) , (sur) not A. (p ina) JA => Sna (punava) => (Sna) in (sna) => (PUNAVA) (n (PUNAVA) ~ (Sna)). (n (Sna) ~ (PM UNAVA))

(spagnara) v(s na)) n(svarpviava) Ep=(7P1Q17D) V (S1Q)

A=7((6RVS)) (1SVR)) == (RA7S) V (SA7R) Exp= (7P1Q1((R17S)V(S17R))) V (S1Q) Q ~ ((2P174) VS) unde 7A-Qn (GPV3)n GAVS) Qn (6PUS) n (BN-S) V (SN-P) US) Qn (6PUS) n (SU(RN-S)) PND: Q1 (SV (TPN (3 RATS))).

of (pc) & (pna))=>7Q es (p=, PnQ) ~ ((enQ) => P))=, ,Q (hp v (p, a)) 1 (pag (prv20) vp)) =>>0 (1PV(PNQ)) pt => 1Q (1PVQ) => 1Q (P1)QV 2Q = (TQ) 0 6. d) 7 (28 VQUR) V (Q=>(8×7R)) (PARQUAR) V (2QV (ED. R. PVZR)) (PMQ 17R) V (R PA V7QV7R) of (nevara) ~ (est pure) ~ (nove) ~ (est) (TRUCUR) A (TRU(PATO)) ATTARADO (TRUTE) e) (re vour) 1(RPUR) 1 (7RV7R) 1 (7PV7R) (TRUQUE) A (TRU(RPATP)) A (TQUIR) (re vaux) n(ra) n(ravra)
-(revaux)n(ra)

E devine:
$$(1P_1 \vee P_2 \vee P_3) \wedge (P_1 \vee P_3 \vee P_4)$$

$$(1P_4 \vee P_2 \vee P_3) \wedge (P_4 \vee P_3 \vee P_4)$$

$$(1P_3 \vee P_4) \wedge (P_3 \vee P_4) \wedge (P_4) \wedge (P_$$

~ (60, 00 /2 0/3) ~ (0, 0/3 0/4) = , ~ (P3 = >/6) (1/3 1/6) ~ (P3 (1/4) 0/1) $\sim \left(\left(P_{1} \vee P_{3} \right) \vee \left(P_{1} \wedge P_{4} \right) \right) \wedge \left(P_{1} \vee P_{2} \vee P_{3} \right) = 7 \left(P_{3} = 5 P_{6} \right)$ $\left(2 P_{3} \vee 2 P_{6} \right) \wedge 2 P_{2}$ ~ (P, VP3) 1 (P, VP2 VP3) => (P3 = P5) (2/3 V2P6) 12P2 ~ ((P, vP3) ~ (2P3 v2P6) ~ 2P2) => 2 (P3=2P6) ~ ((PIVP3) A (7P3 V7P6) A7P2) => (P3 V7P6) ~ & (alenal3) ~ (P3 1P6) VP2 ~ (P3 val6) ~ (2P, MP3) VP2 V (B3 1P6) V(P3 V1P6)

(P, Q, Qz e P(v) PUQI, -PUQZ = QIVQZ (PVQI) n (PVQ2) => (QIVQ2) -volde PVQ2 (Praji(PVQ2) A=> (Q, vQ2) PUQ, 60 0 3 Supremen pate 1 Supermon poete so previne raul - A Superman previne neul-B Supermen e liport de pulcoi - c Supermen e malelice - s Supermon med se presidentel -E existe - = Supermon 1 (ANE =>B) N (7A=>E) N (7E=>B) N 7B NE => (7C17B)). ~ ((TAME)UB) ~ (AVC) ~ (EVO) ~ 7B ~ (TEUTCUTO)

4