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5) N(PVQ) (PAQ) = DNF

(Balle) o 16, 10) & ~(PVQ) (PAQ) (~(PVQ) ~ (PAQ))) V((PVQ) ~ ~(PAQ))

N(PVQ) (PNQ) (PNQ) (PVQ) N((PVQ)) N(NPV NQ)

> (~PA NGAPAQ) v ((PVQ A(~PV~Q))

⇔ (rpn ~gn png) v ((pv g)n ~p) v ((pvg)n ~o-)

↔ (~PA~gArAO) V(PA~P) V(QA~P) V(PA~Q) V(QA~Q)

6) P V { ~ P -> ( q V ( q -> ~ r ) ) }

br ( ub -> ( dr ( nd nul) ) }

prf~~pv(qv(~qv~r)}

br{br(dr(~dr~~))

pv { pv (qv ~q) v (qv ~r) }

Prpv(qv~q)v(qv~r) = DNF

7) CNF > ~ (PVQ) - (P A Q)

 $\sim (P \vee q) \leftrightarrow (P \wedge q)$ 

⇒ (~(Pvg) → (P∧g)) ∧ ((P∧g) → ~(Pvg)), ∧ p v q ∧ (Pvg) ⇒ ~(Pvg) ~ (PAQ) ~ (PvQ) v(PAQ)) ~ (~(PAQ) v(~PA~Q)

((PVQVP) A (PVOVQ)) A ((~PV~Q) V (~PA~Q)

(PVQVP) N(PVQVQ) N(NPVNQVNP) N(NPVNQVNQ)

8 1 ( 6 x de ) v1 ) 60

A N ( A N John ) L.

CENTAL BENE

PV (PONA) V4"

Br (Buyl) , du

) ~ ( to vd ) ~ du Do

(4+1) A (404) (8

CANENDO CANED

(8) DNF of (p-19) \(\rho(p\1)\) and (p\(\rho(p-19)\)) -1 \(\rho\) and " (sall way) (p= 9) 1 (~p19) > (~p.q) ~ (~pvq) JUNE ( why by a man ) Love PA (P-) 9) -19 (10 1) V (10 A (3 47)) V (3 A 7 A 0 0 ) ( b v (~ 6 na).) 17 19 0 (( + + + ) v p) = 1-~ (pr (~pvq) v 9 1. ( Comman Jah) ell ~ p v~(~p v q) v q icensha, aljan ~p v ( p ~ ~ q) v q [(x ... / pr) x] ~p v(pn~q) vq (conve) v (for ill ~(PAP) v (PA~9) v (9A9) - DNF ING = (INVP) V (PAM) 9) (pnq) n (q -> p) (DAJ) - (DVI) of (1 19) 1 ( ~9 VP) (DAY) FA (P N ~ 9) X (PMP) X (QN ~ 9) N (QNP) = (PANQ) APV PA AAP) ~ (TOAT) ~ (TOAT) = (pragap) a (grapap) = (pragap) = (pragap) = (PAQ) A (Q→P) VANUA (BUZUT)A (DE (PA9) 1 (~qvp) ( MAND V ( LV d) (~q~p) ~ (p~q)') ' (~g~p) ~~(~pv~g) -> CNF