1. A=((pAq) →r) →(pv>r)

P	9	r	P19	フト	Pur	Paq->r	A
0	0	0	0	1	)	1	/
0	0	1	0	0	0	1	0
0	1	0	0	1	1	1	1
0	1	- 1	0	0	O	1	D
1	0	0	0	1	,	1	1
1	0	1	0	O	1	1	1
1	1	0	1	1	1	0	1
7	1	1	1	0	1	1	1

A = (7P17917) V(7P1917r) V(P1791r) V(P1791r) V(P1917r) V(P1917r)

2.  $A = 7 (7P\Lambda 79\Lambda r)_{\Lambda 7} (7P\Lambda 9\Lambda r)$ =  $(PV9V7r)\Lambda(PV79V7r)$ 

3. ((pAq) >r) > (pV7r)

(7(pAq) Vr) > (pV7r) implication climination

7(pAq) Vr) V (pV7r) implication elimination

(77(pAq) A7r) V (pV7r) de Morgen

((pAq) A7r) V (pV7r) DNF

(pV7r) V ((pAq) A7r) Commutativity of V

((pV7r) V (pAq)) A ((pV7r) V7r) distributivity of V over A

((pV7r) V pAq) A (pV7r) V7r) distributivity of V over A

(pV7r) A (pV7r) A (pV7r) associativity of V and V

(pV7r) A (pV7rVq)

4. (pvtvs)  $\Lambda(qvrvrsvrt)\Lambda(pvrqvs)\Lambda(pvqvrvrt)$   $\Lambda(qvrvrs)\Lambda(rpvrsvrt)\Lambda(rpvrqvsvrr)\Lambda(rrvt)$ select p=T  $(qvrvrsvrt)\Lambda(qvrvrs)\Lambda(rsvrt)\Lambda(rqvsvrr)\Lambda(rrvt)$ Select q=T  $(rsvrt)\Lambda(rsvrt)\Lambda(svrr)\Lambda(rrvt)$ Select r=T  $(rsvrt)\Lambda S \Lambda t$ Select S=T  $rt \Lambda t$  select t=F (rsvrt) clause - backtrachSelect t=T

() empty clause - backtrack

Select t=T

() empty clause - backtrack

Select S=F

() n(t) - empty clause - backtrack

Select r=F

75 V7 t

Select S=F

ho more clauses - SAT