((r n p’)v(r n q))v((r’ n p’)v(r’nq))

=((r n p’)v(r’ n p’))v((rn q)v(r’n q))

=((T n p’)v(F n p’))v((T n q)v(F N Q))

=(P’ V F)V(Q V F)

=P’ V Q

P N ((Q->R)’) = P->R

=P N ((Q’VR)’)

=P N (QR’)

=P N Q N R’

Let Q be F, LHS = F

P=F

R=T

LHS=F

RHS=T

Thus disproved

(P n q )-> r

P

Q

r->s

thus s

1)p is true

2) q is true

3)p n q is true conjunctive addition

4)(pnq)->r

5) r modus pollens

6)r->s

7)s modus pollens

P’ n q

r->p

r’->s

s->t

t

r’->t

p’->r’

p’->t