

3a. Let p, q, r be propositional atoms. We can write

p	q	$\neg p$	$\neg q$	$\neg p \vee \neg q$	$\neg(\neg p \vee \neg q)$	$p \wedge q$
tt	tt	ff	ff	ff	tt	tt
tt	ff	ff	tt	tt	ff	ff
ff	tt	tt	ff	tt	ff	ff
ff	ff	tt	tt	tt	ff	ff

6i. No logical form

6j. Acceptance of late application : p

Increase in class quota : q

$$p \rightarrow q$$

6k. Paying now: p

Guarantee ticket: q

$$\neg p \rightarrow \neg q$$

7b

p	q	$\neg p$	$\neg q$	$(\neg p \vee \neg q)$	$\neg(\neg p \vee \neg q)$	$p \wedge q$	$p \wedge q \leftrightarrow \neg(\neg p \vee \neg q)$
tt	tt	ff	ff	ff	tt	tt	tt
tt	ff	ff	tt	tt	ff	ff	ff
ff	tt	tt	ff	tt	ff	ff	ff

ff fe te tt te ff fe fe te