Week 04 Exercises

Qs. 1

Given a state

$$s = \frac{\text{var} \quad | \quad p \quad q \quad r \quad s}{\text{val} \quad | \quad F \quad T \quad T \quad F}$$

evaluate the sentence

- $\neg((r \vee \neg q) \wedge \neg s) \vee (\neg(\neg p \wedge q) \wedge s))$

in the state, s.

1. Determine the DNF of the function, $b(p, q, r)$, whose Truth Table is the following:

p	q	r	$b(p, q, r)$
F	F	F	T
F	F	T	F
F	T	F	T
F	T	T	T
T	F	F	F
T	F	T	F
T	T	F	F
T	T	T	F

2. Simplify the function, $b(p, q, r)$,