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CSE 103

**Ex 1.1** Problem :-41(Solution)

The first clause  $(p \vee q \vee r)$  is true if and only if at least one of  $p$ ,  $q$ , and  $r$  is true. The second clause

$(\neg p \vee \neg q \vee \neg r)$  is true if and only if at least one of the three variables is false. Therefore both clauses are true,

and therefore the entire statement is true, if and only if there is at least one T and one F among the truth

values of the variables, in other words, that they don't all have the same truth value.