Chapter: 1

Section: 1

Solving student id: 1705088

Verifying student id: 1705011

Subject: Assignment from the book

Exercise no: 08

Solution:

Here,

P: I bought a lottery ticket this week

Q: I won the million dollar jackpot‸‸┐

1. ┐p : I did not buy a lottery ticket this week.
2. P v q : I bought a lottery ticket this week or I won the million dollar jackpot.
3. P → q: If I bought a lottery ticket this week then I won the million dollar jackpot.
4. P ∧ q: I bought a lottery ticket this week and I won the million dollar jackpot.
5. P q: I bought a lottery ticket this week if and only if I won the million dollar jackpot.
6. ┐P → ┐q: If I did not buy a lottery ticket this week then I did not win the million dollar jackpot.
7. ￢p ∧￢q : I did not buy a lottery ticket this week and I did not win the million dollar jackpot.
8. ￢p ∨ (p ∧ q) : I did not buy a lottery ticket this week or I bought a lottery ticket this week and I won the million dollar jackpot.