Q1) Prove the following using Truth Tables.

1. (A.B)’ = A’ + B’

| A | B | A’ | B’ | A.B | (A.B)’ | A’ + B’ |
| --- | --- | --- | --- | --- | --- | --- |
| 0 | 0 | 0 | 0 | 0 | 1 |  |
| 0 | 1 | 0 | 1 | 0 | 1 |  |
| 1 | 0 | 1 | 0 | 0 | 1 |  |
| 1 | 1 | 1 | 1 | 1 | 0 |  |

1. A.(B+C) = A.B + A.C
2. (A.B).C = A.(B.C)
3. (A+B)’ = A’ . B’
4. A+(B.C) = (A+B) . (A+C)
5. (A+B)+C = A+(B+C)