CSE260 | Assignment 02

1. Simplify the following boolean expression to minimum number of literals:

a. x'yz' + x'yz + xyz + x'yz'

b. (x' + y')(x + y)

c. (a' + b)'(a + b')'

2. Find the complement of the following expression:

a. x'y' + xy'

b. (x' + y + z')(x' + y')(x + z')

3. Draw the following functions using NAND gates only:

a. F(A,B,C)=A'B+A'BC'+A'C

b. F(A,B,C,D)=(A'B'CD' + A'D + (B+D'))'

NB: Please draw horizontally on your script.

NB: You can't simplify the above functions and then draw using NAND gate. You have to draw based on the function given in question

4. Draw the following functions using NOR gates only:

a. F(A,B,C)=A'B+A'B'C+A'C'

b. c. F(A,B,C,D)=(AB'C'D' + AD + (B+D'))'

NB: Please draw horizontally on your script.

NB: You can't simplify the above functions and then draw using NAND gate. You have to draw based on the function given in question