

Name: Oluwatobiloba Sokoya

Lab 1 solution

1a) XOR Truth table.

Inputs		Expected output Y
x_1	x_2	
0	0	0
1	0	1
0	1	1
1	1	0

1b) XOR logical equation:

$$Y = (\bar{x}_1 \cdot x_2) + (\bar{x}_2 \cdot x_1)$$

1c) XOR combinational circuit.

XOR combinational circuit.

2. XOR Logical Equation

$$Y = X_1' \cdot X_2 + X_1 \cdot X_2'$$

3. XOR Truth Table

X1 (Input)	X2 (Input)	Y (Output)
0	0	0

0	1	1
1	0	1
1	1	0

4.



