



**Labwork - # 2**

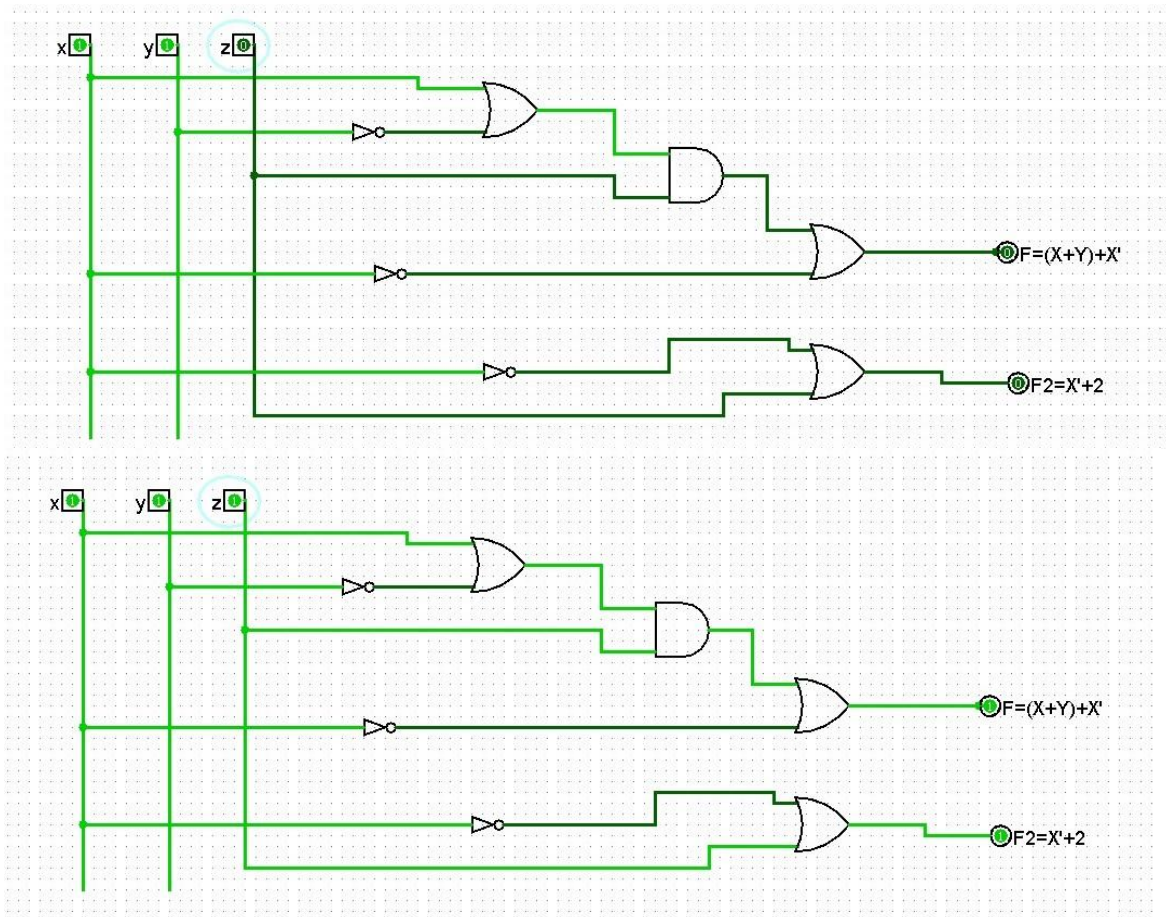
**Student Name: ID:**

## 1. Introduction

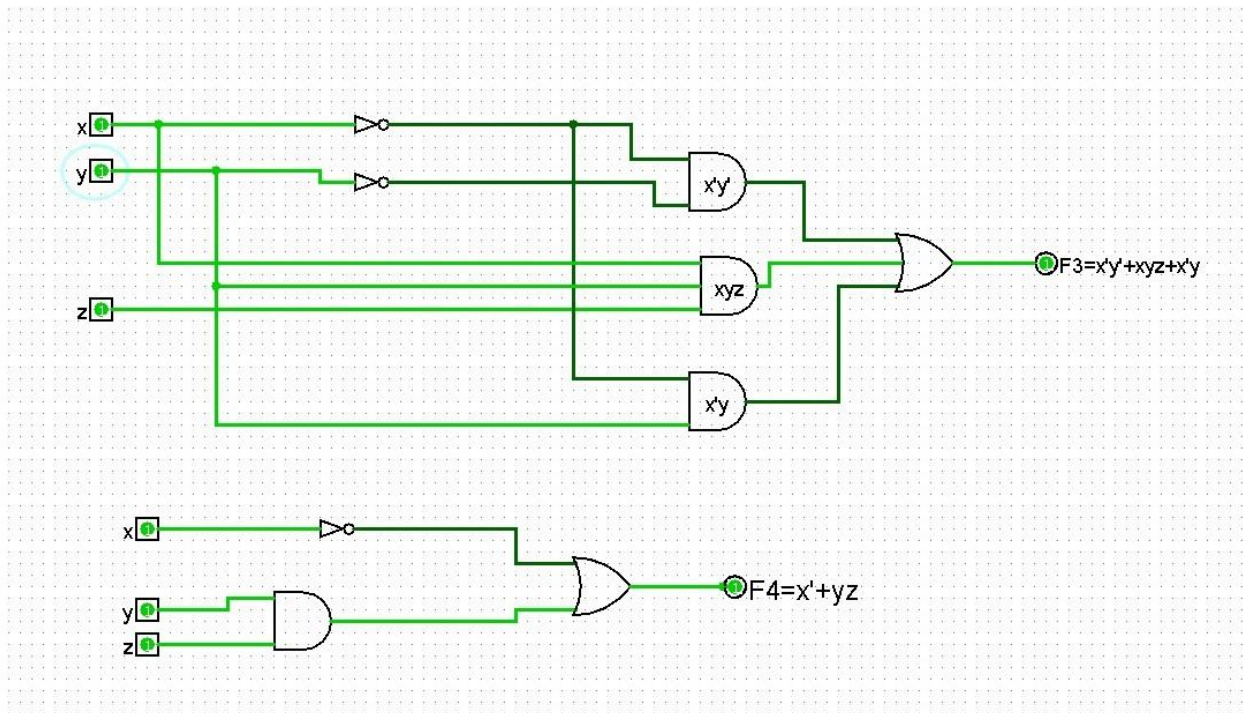
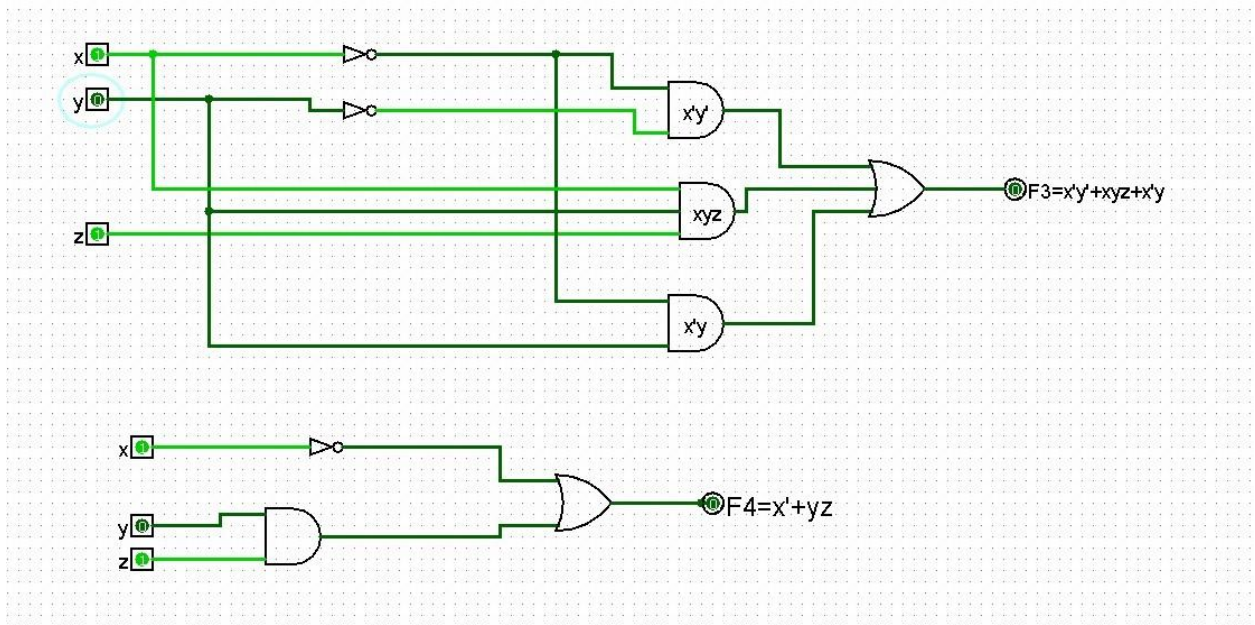
Today we have drawn 2 different circuits with different number of gates. We also did the truth table.

## 2. Experiments

Q1:



Q2:



### 3. Results

truth table:

X	Y	Z	X'	Y'	X+Y'	(X+Y')Z	F= (X+Y')Z+X'	F2 = X'+Z	F3= X'Y'+XYZ+X'Y	F4 = X'+YZ
0	0	0	1	1	1	0	1	1	1	1
0	0	1	1	1	1	1	1	1	1	1
0	1	0	1	0	0	0	1	1	1	1
0	1	1	1	0	0	0	1	1	1	1
1	0	0	0	1	1	0	0	0	0	0
1	0	1	0	1	1	1	1	1	0	0
1	1	0	0	0	1	0	0	0	0	0
1	1	1	0	0	1	1	1	1	1	1

#### 4. Discussion

- Both circuits are producing same result. But the circuit has less number of gates is cheaper and faster than the circuit has more gate.