Instructions

Construction of 1-Bit Comparator and verification of its operation

Print

Power

VCC | 14 | 13 | 12 | 11 | 10 | 9 | 8

IC 7404

1 | 2 | 3 | 4 | 5 | 6 | 7
GND

VCC | 14 | 13 | 12 | 11 | 10 | 9 | 8

IC 7408

1 | 2 | 3 | 4 | 5 | 6 | 7
GND

VCC | 14 | 13 | 12 | 11 | 10 | 9 | 8

IC 7402

1 | 2 | 3 | 4 | 5 | 6 | 7
GND

Switch 1 (X)

Switch 2 (Y)

LED 1
X>Y
X$\overline{Y}$

LED 2
X<Y
$\overline{X}$ Y

LED 3
X=Y
XY+$\overline{X}$ $\overline{Y}$
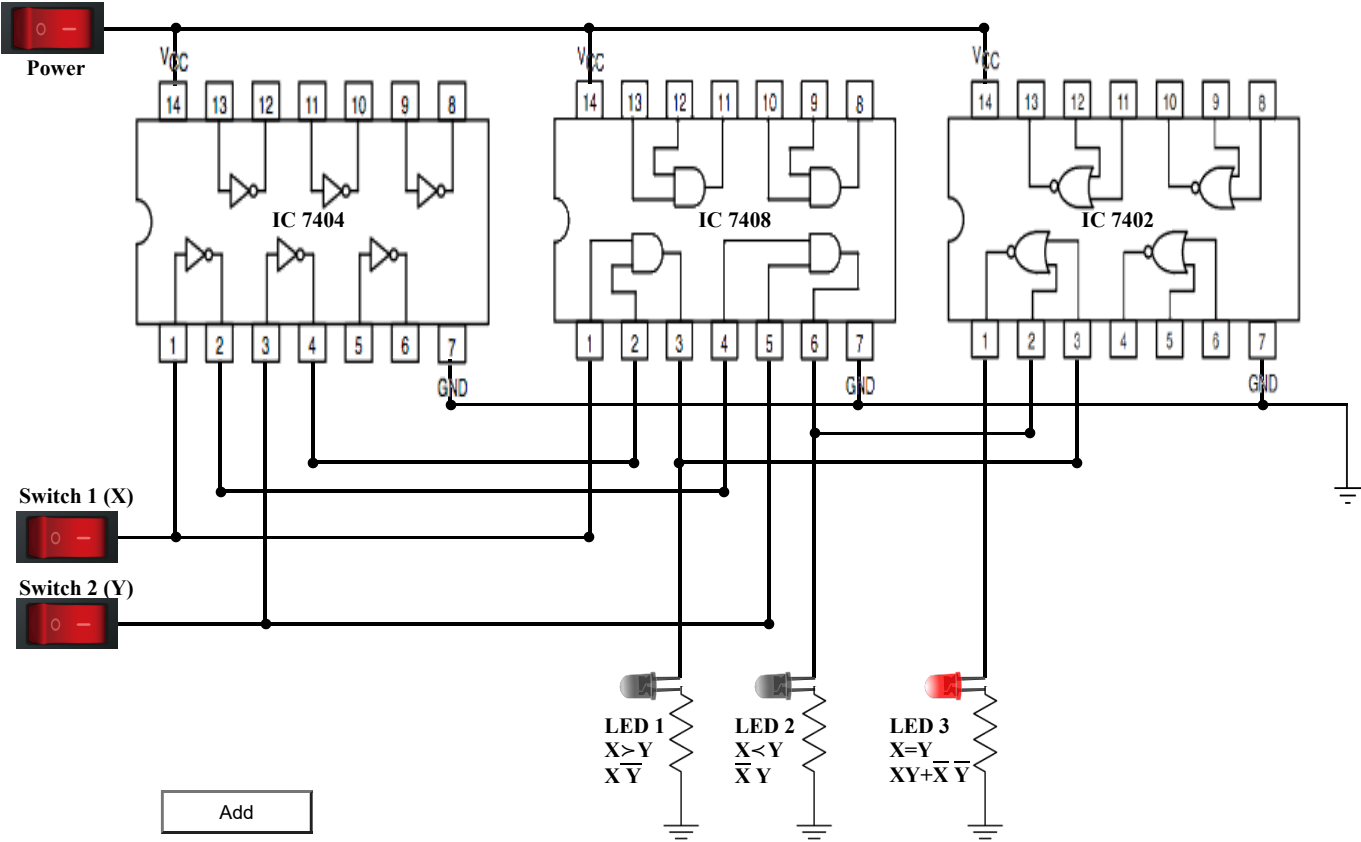
Add

TRUTH TABLE

Serial No.	X	Y	X>Y	X<Y	X=Y
1	0	0	0	0	1
2	0	1	0	1	0
3	1	0	1	0	0
4	1	1	0	0	1