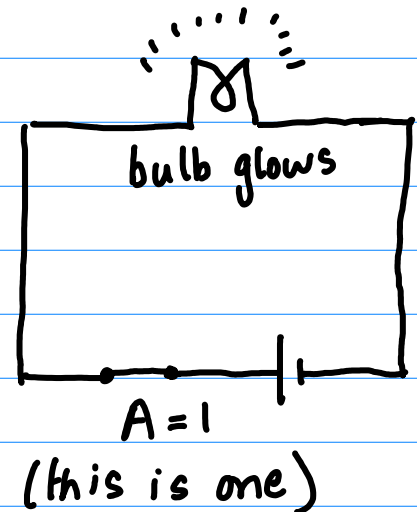
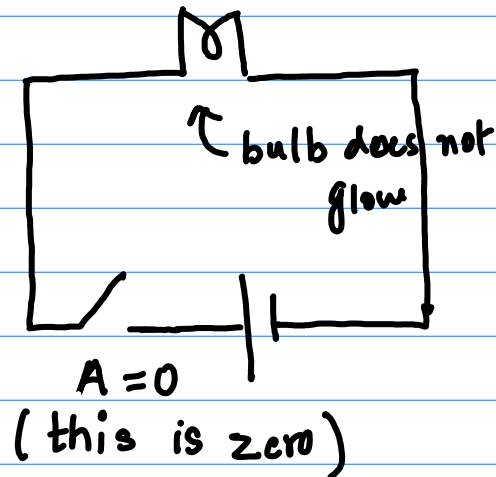
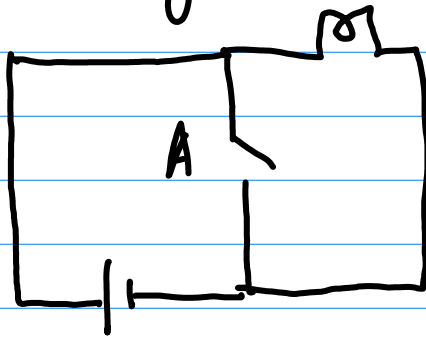


# LOGIC GATES

① Consider a simple circuit:-



② We can arrange the switch A differently



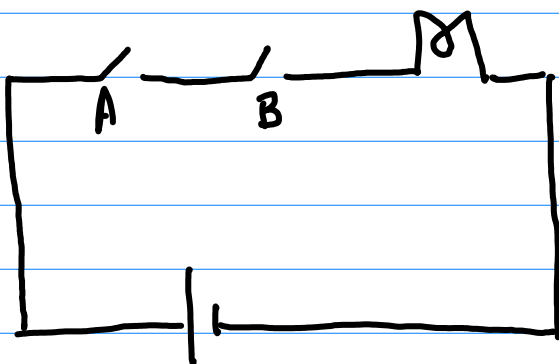
**NOT**

In this arrangement,  
when  $A=0$ , the bulb glows  
when  $A=1$  the bulb does not glow.

The bulb is then  $NOT(A)$

A	Bulb = not A
0	1
1	0

③ Let us consider next a circuit with two switches

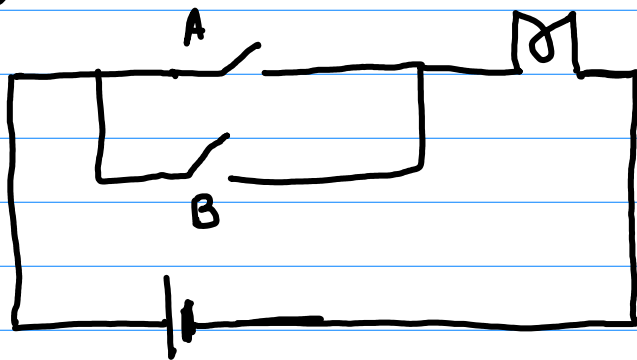


AND

Only if both A and B are 1 the bulb will glow...

A	B	Bulb = A and B
0	0	0
0	1	0
1	0	0
1	1	1

④ Finally let's consider this one →



OR

A	B	Bulb = A or B
0	0	0
0	1	1
1	0	1
1	1	1

If either switch A or B is 1, the bulb glows.

⑤ Using AND, OR, NOT to do comparisons

A	B	$A > B$	$A < B$	$A == B$
0	0	0	0	1
0	1	0	1	0
1	0	1	0	0
1	1	0	0	1

