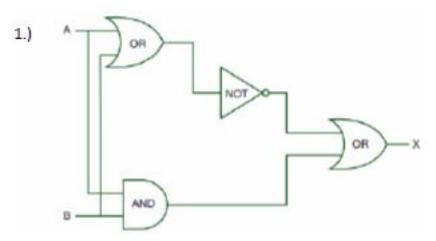
Using the the following website (https://logic.ly/demo/), you need to create all possible scenarios for each of the circuit diagrams below.

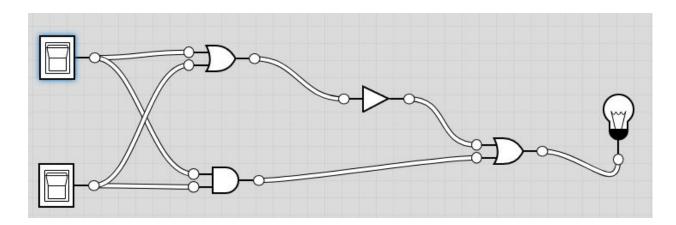
You need to take screenshots of each of the outputs and then paste them into this document. You need to make sure that ALL possible outcomes are shown (E.g. 2 inputs 4 outcomes, 3 inputs 8 outcomes...etc). Then you need to make a truth table by inserting a table and write out the equivalent algebraic expression.

A, B, and C are inputs represented by a toggle switch. When the switch is ON, it is the equivalent of sending +5 volts and when it is OFF, it is the equivalent of sending 0 volts (equivalent to saying no voltage at all).



Screenshots:

Example: A = 0 and B = 0. Output: 0 (Bulb is OFF)

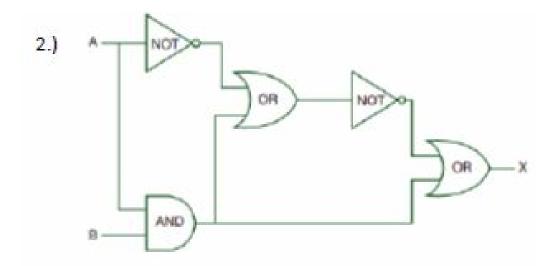


You need to show the other three combinations below.

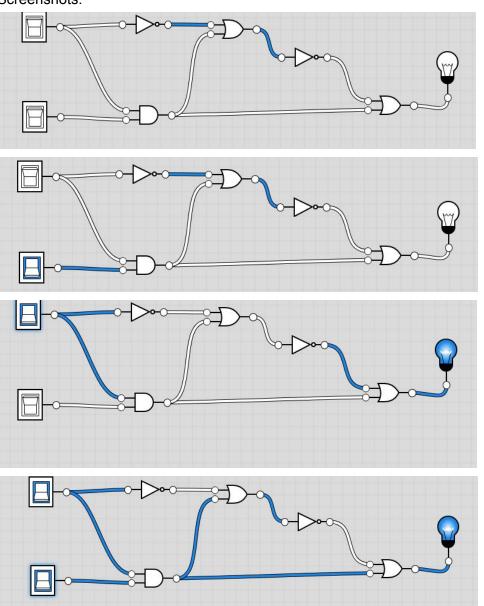
When you are done, fill in the truth table below:

A (input)	B (input)	X (output)
0	0	1
0	1	0
1	0	0
1	1	1

Write the equivalent algebraic expression here : Example (A'B + BC) (A+B)+(AB)

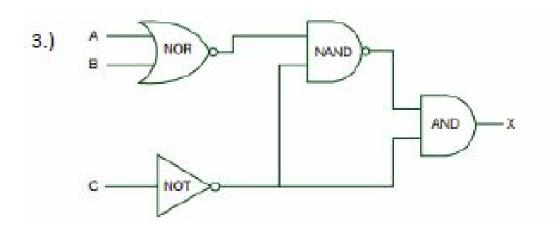


Screenshots:

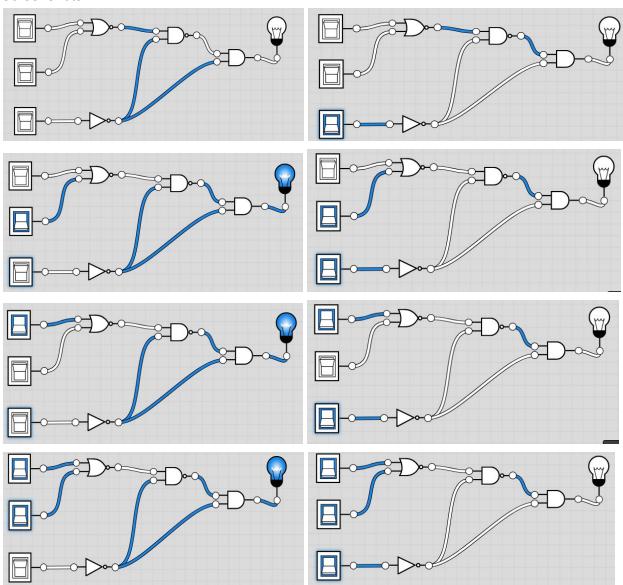


A (input)	B (input)	X (output)
0	0	0
0	1	0
1	0	1
1	1	1

Algebraic Expression: ((AB)+A)+B



Screenshots:



Truth table:

A (input)	B (input)	C (input)	X (output)	
0	0	0	0	
0	0	1	0	
0	1	0	1	

0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	1
1	1	1	0

Algebraic Expression: ((A+B)C)C