

Name: Muhammad Sherjeel Akhtar

Roll No: 20P- 0101

Section: 2D1

DLD LAB TASK: 2

Submitted To: Maam Anam

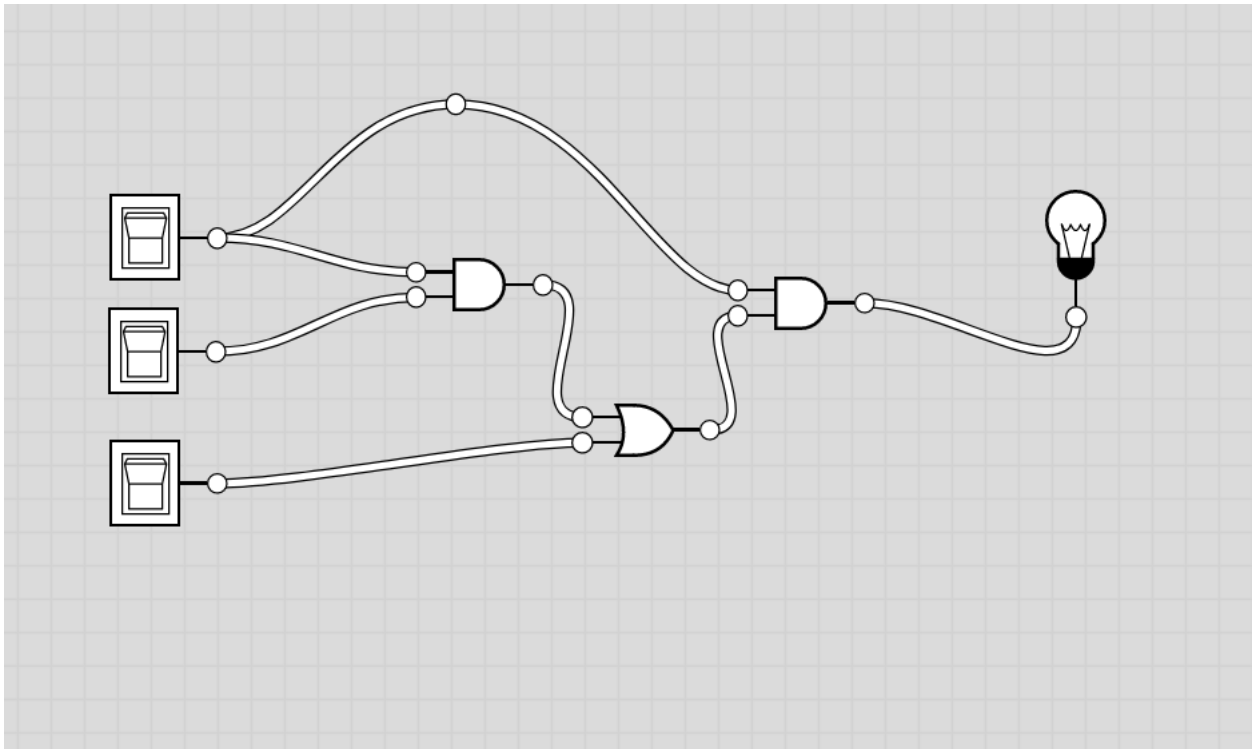
Question: 1

Part 1:

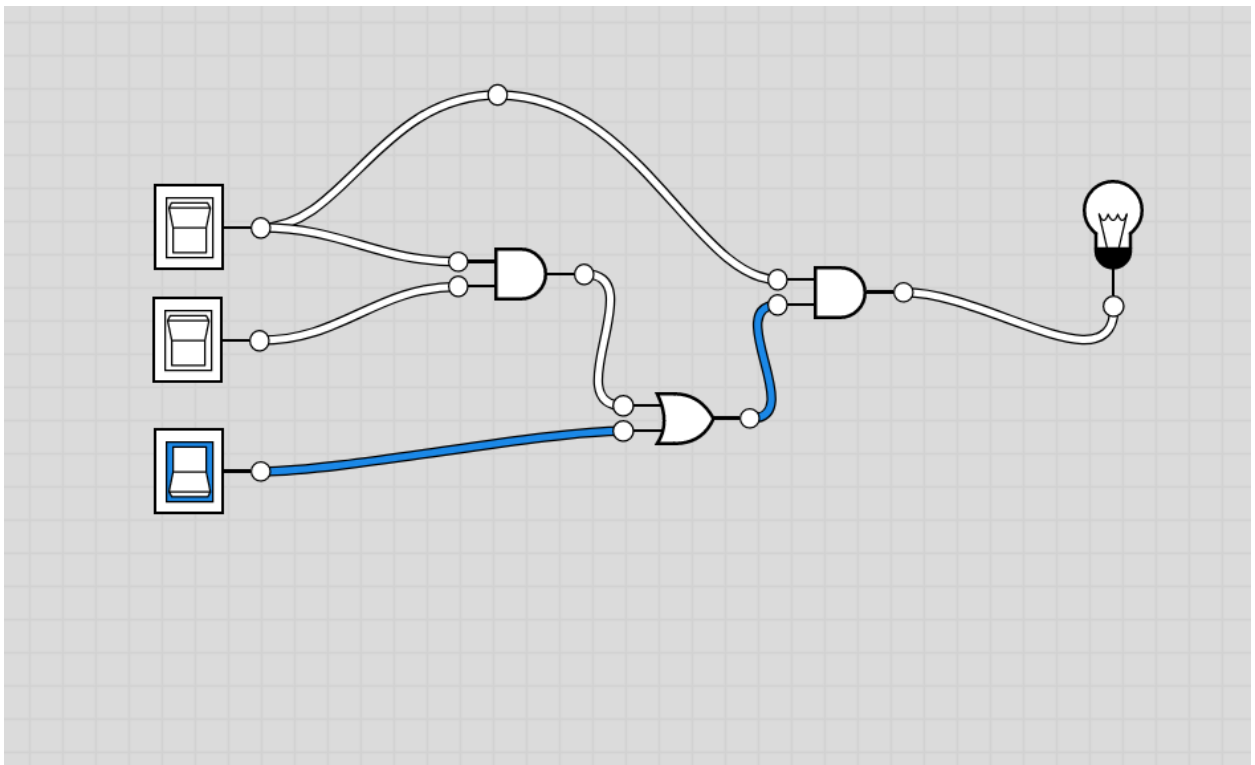
Output Expression: $A \cdot ((A \cdot B) + C)$

A	B	C	R
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	1

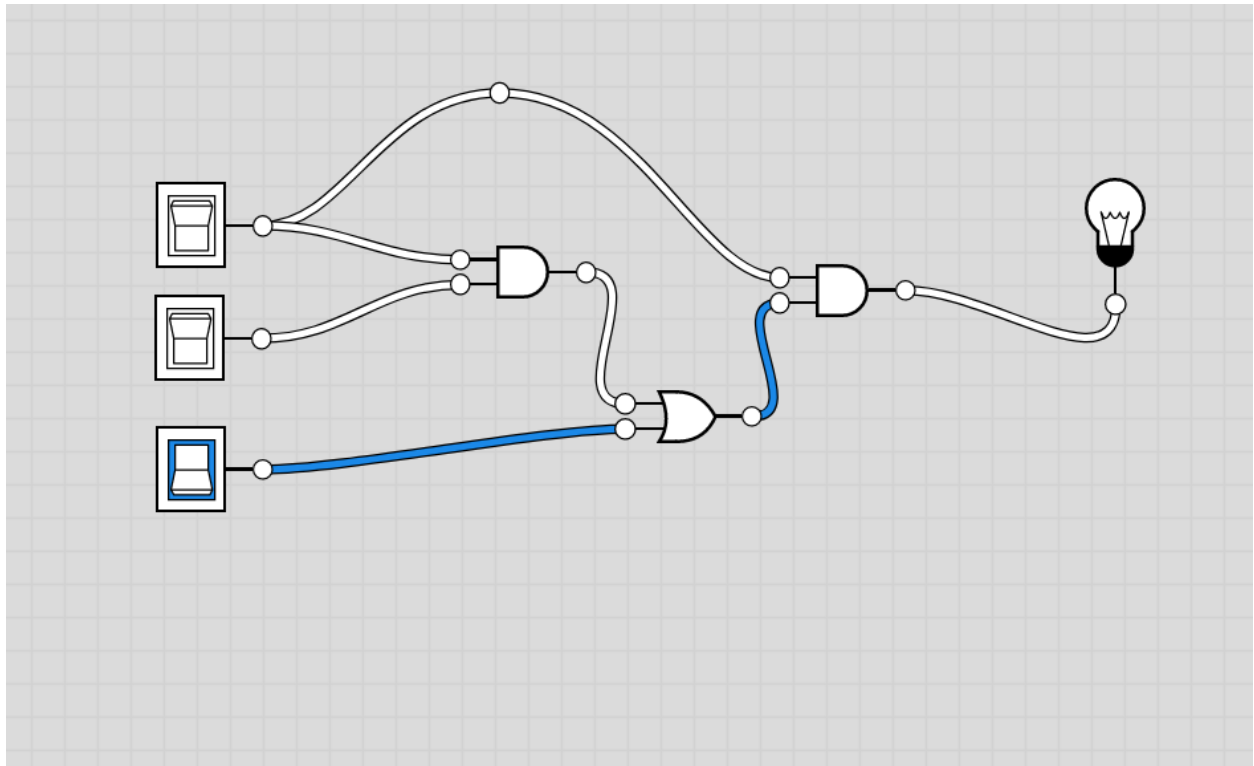
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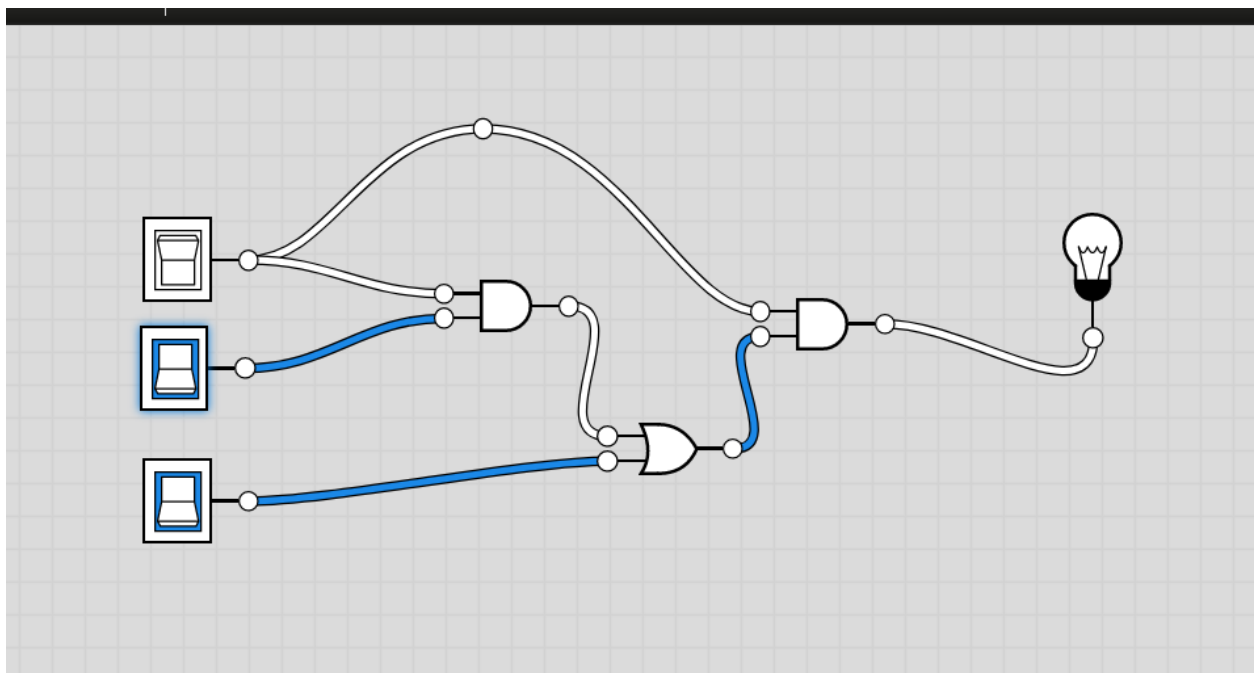
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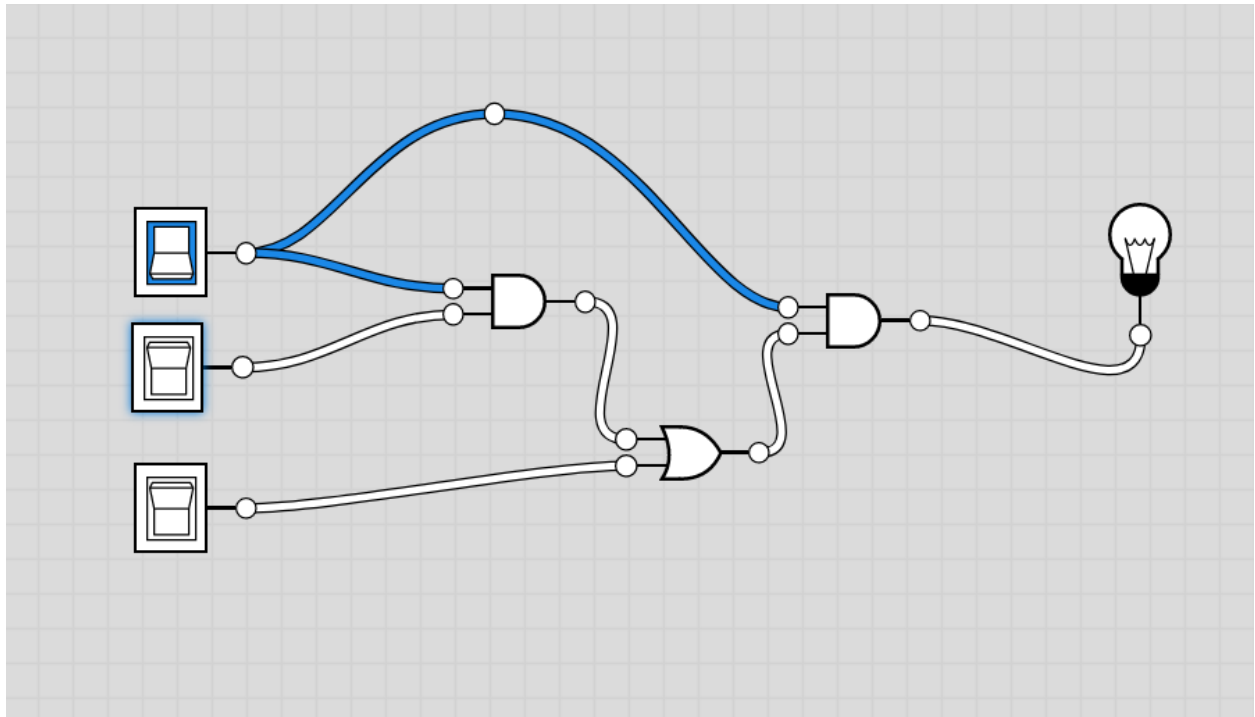
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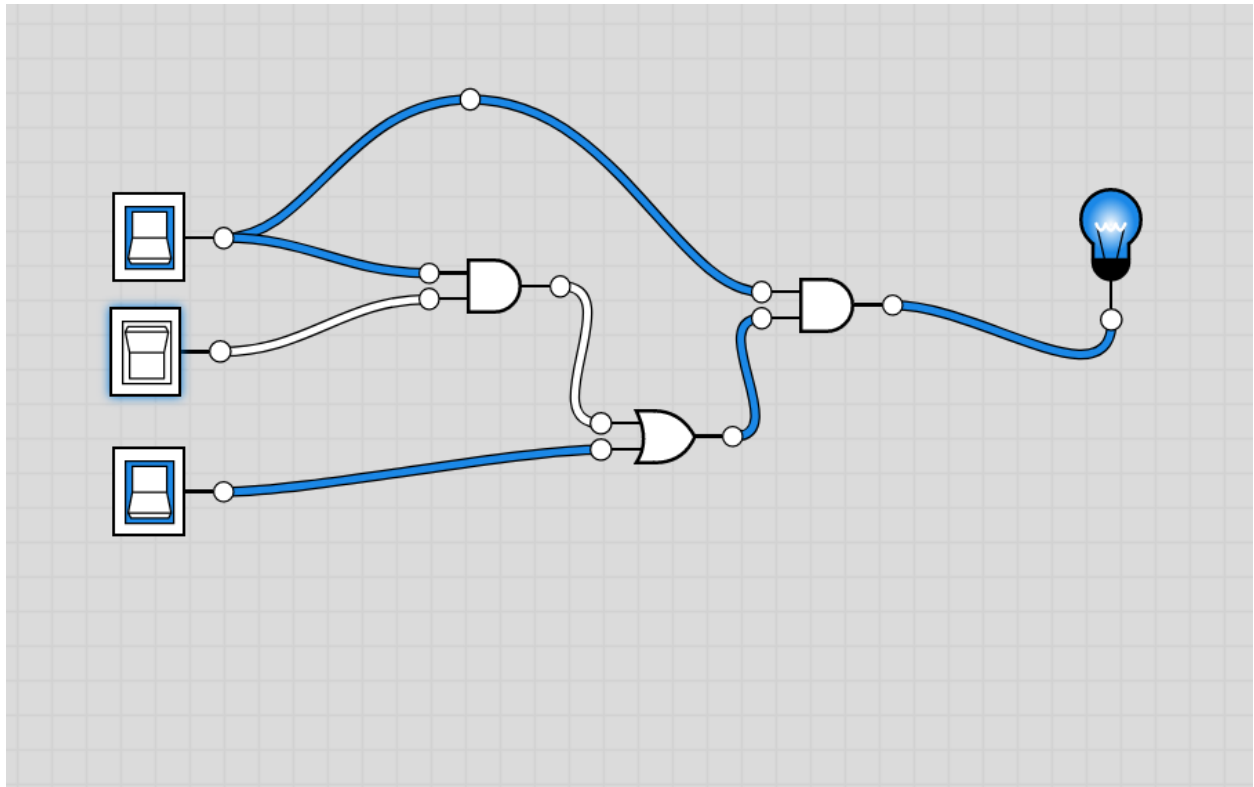
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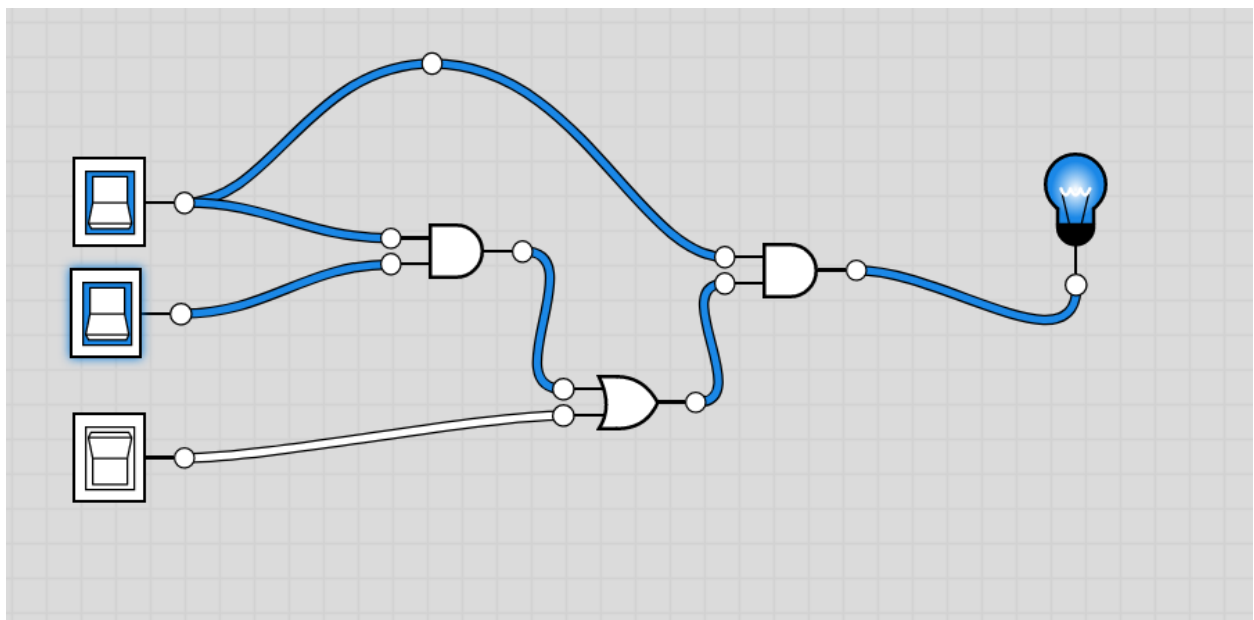
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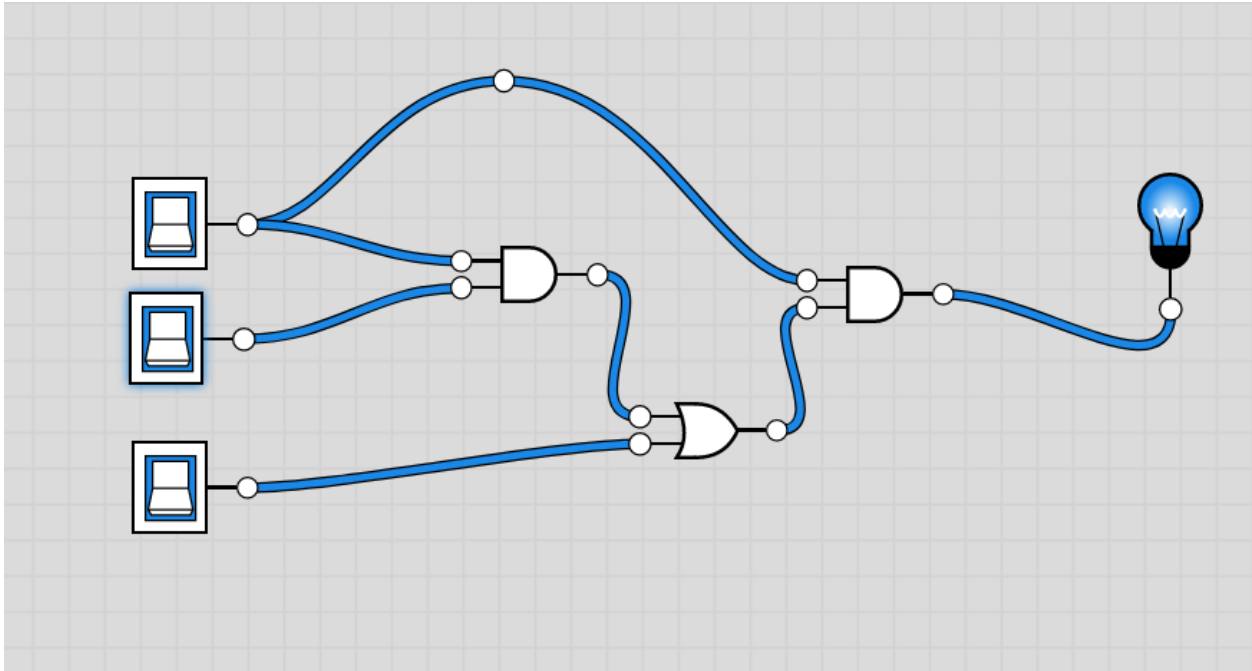
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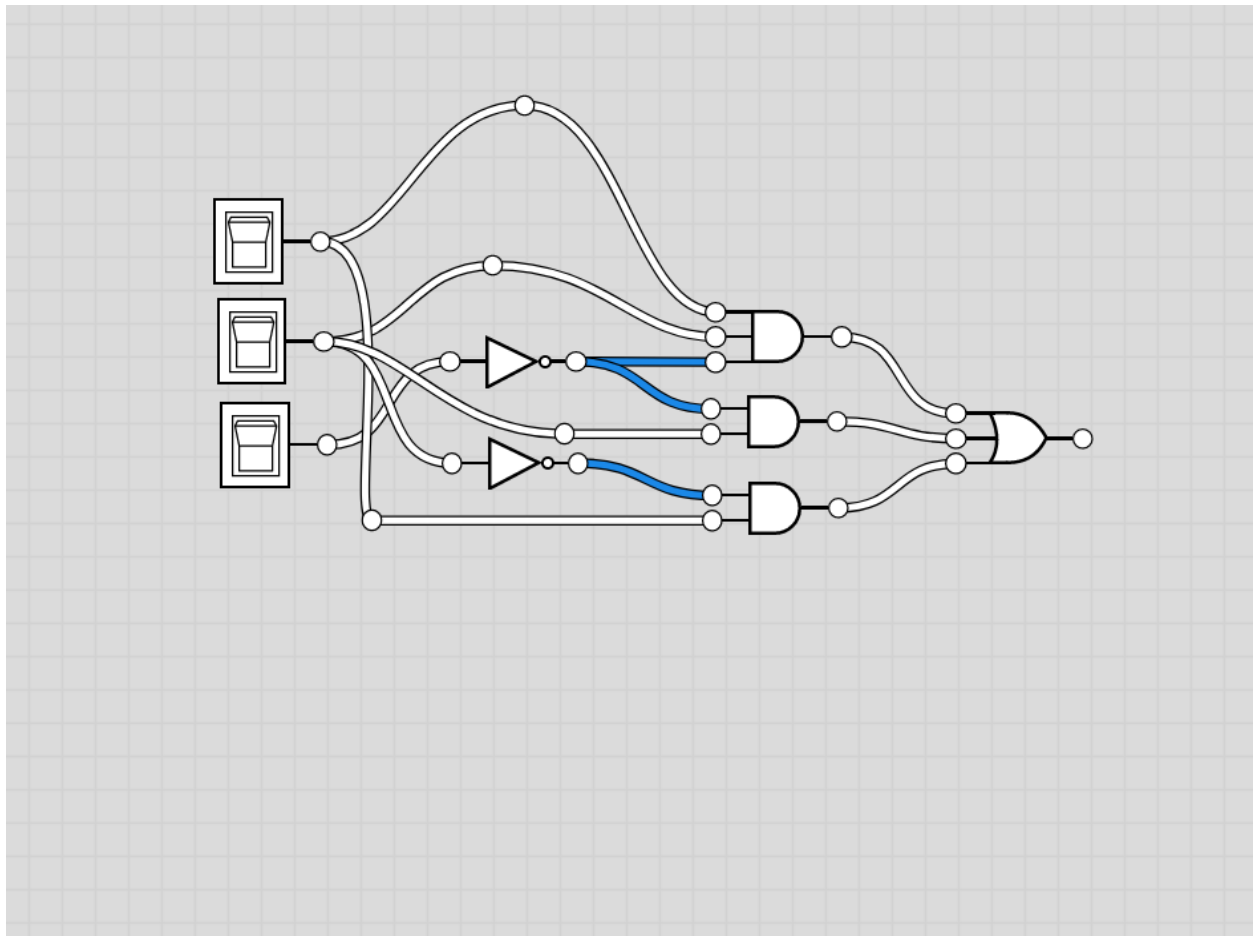
Part 2:

Expression: $(A.B.C') + (B.C') + (A.B')$

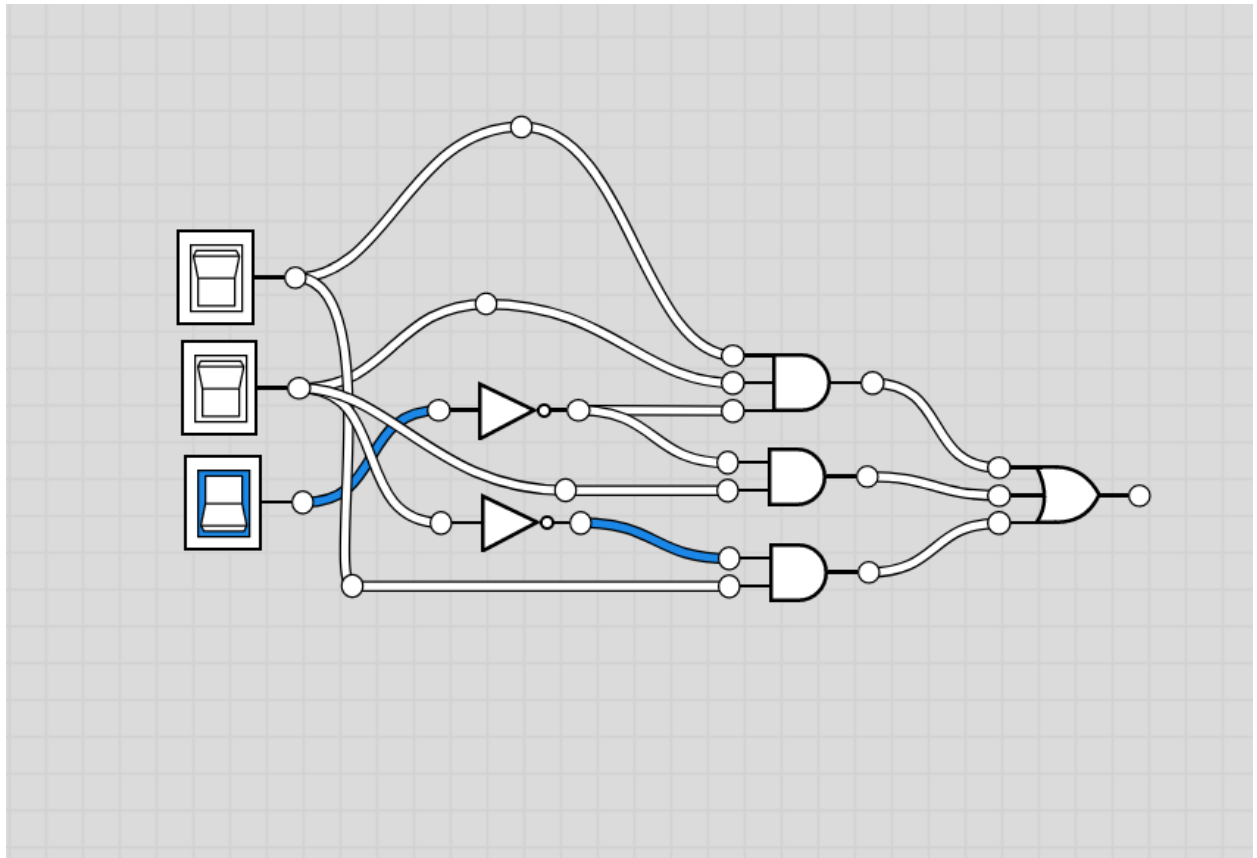
A	B	C	R
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	1

1	1	0	1
1	1	1	0

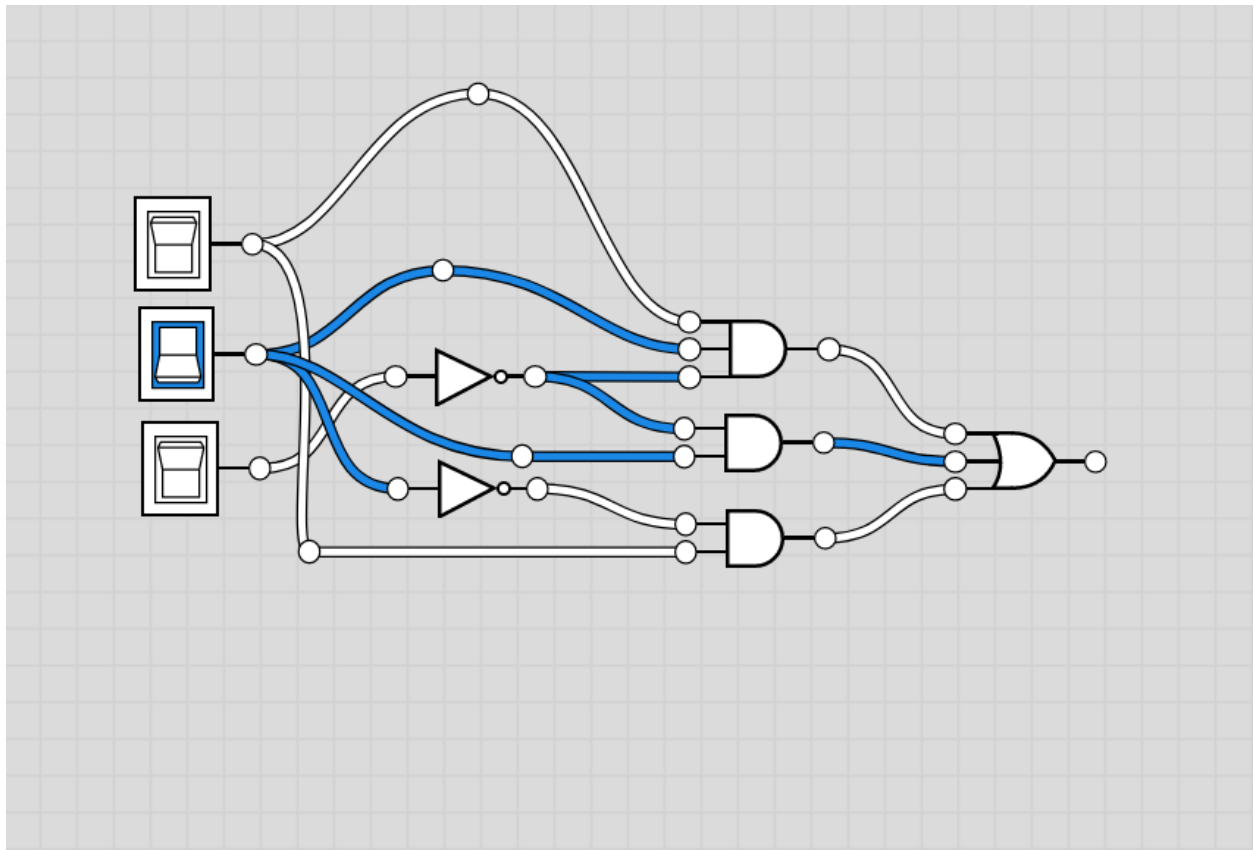
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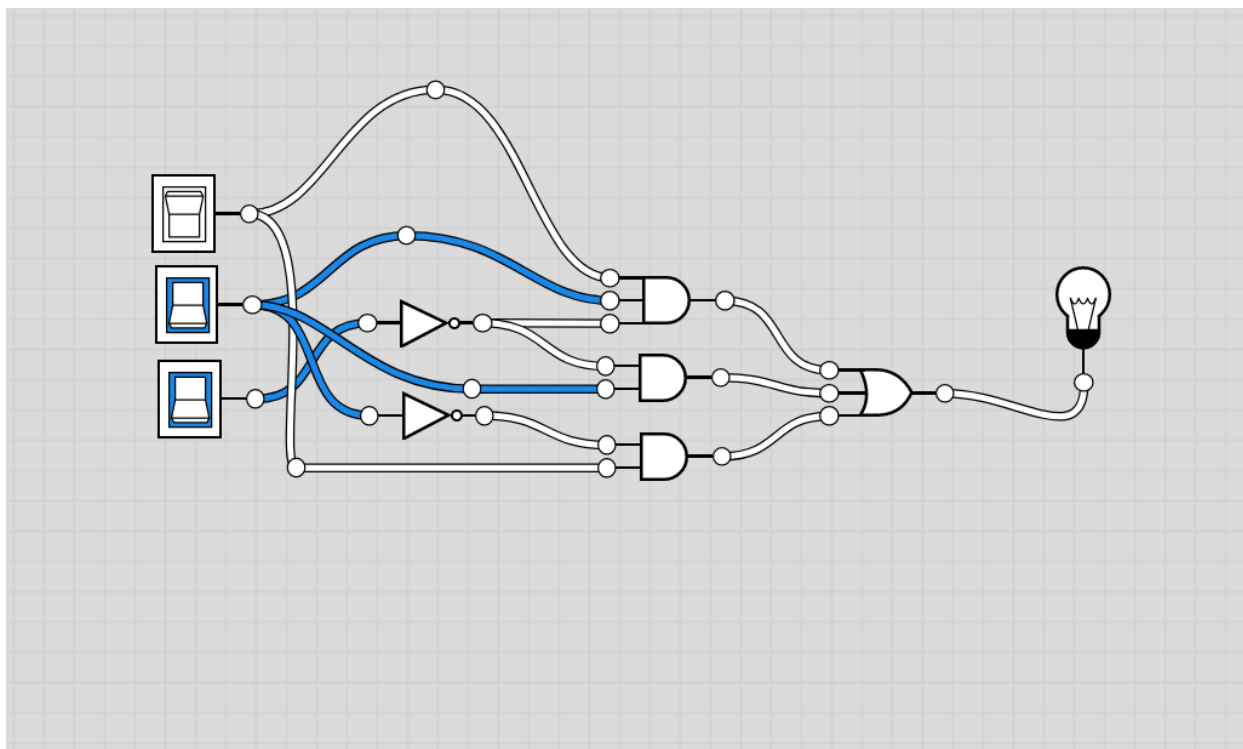
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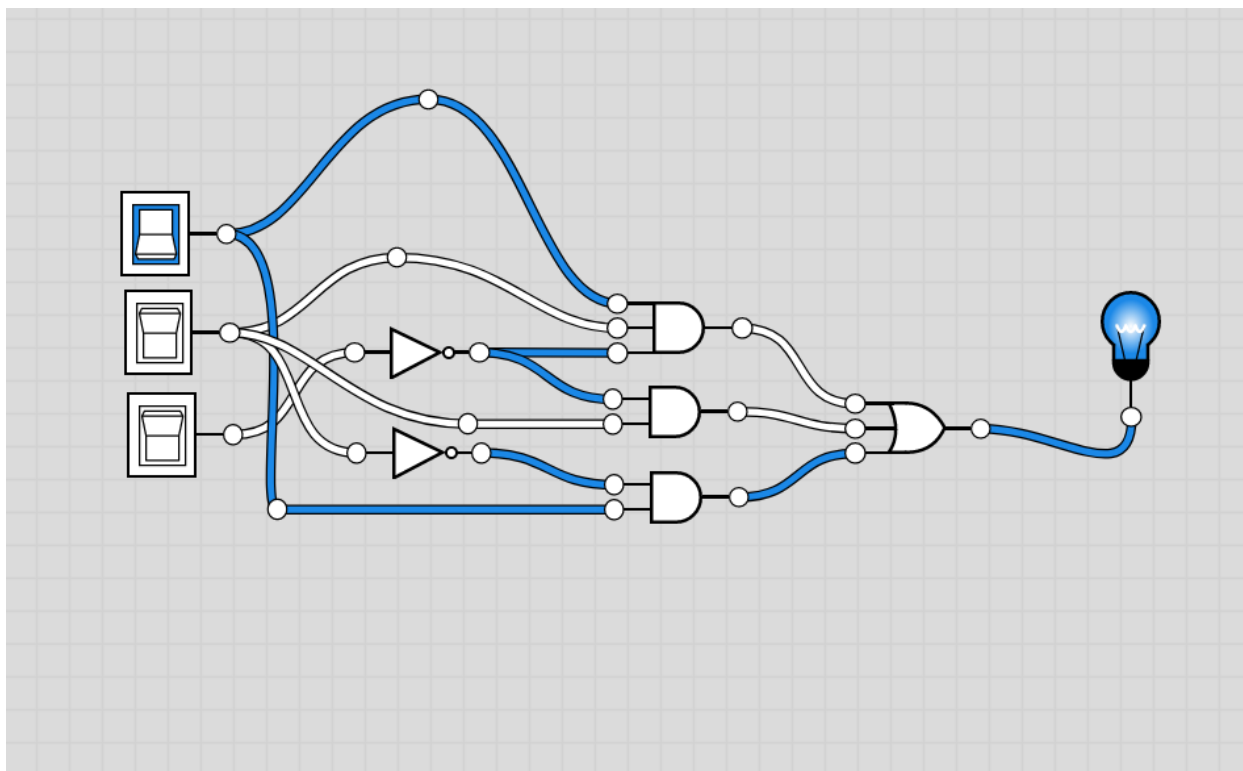
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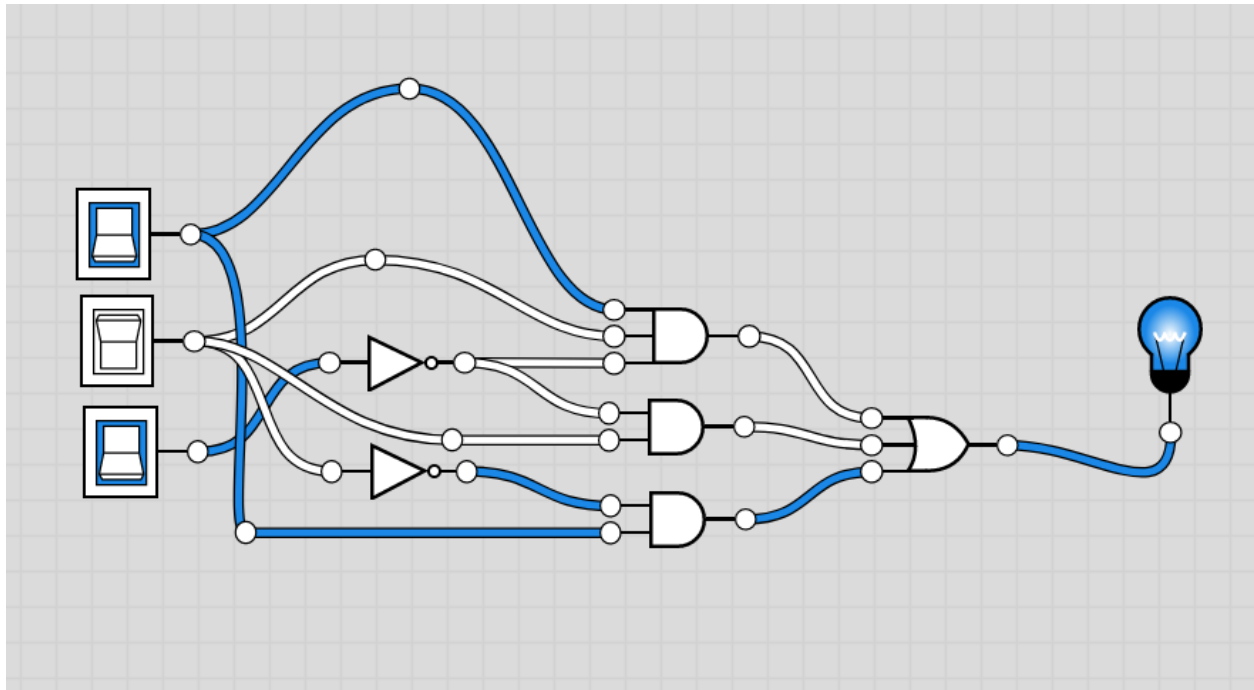
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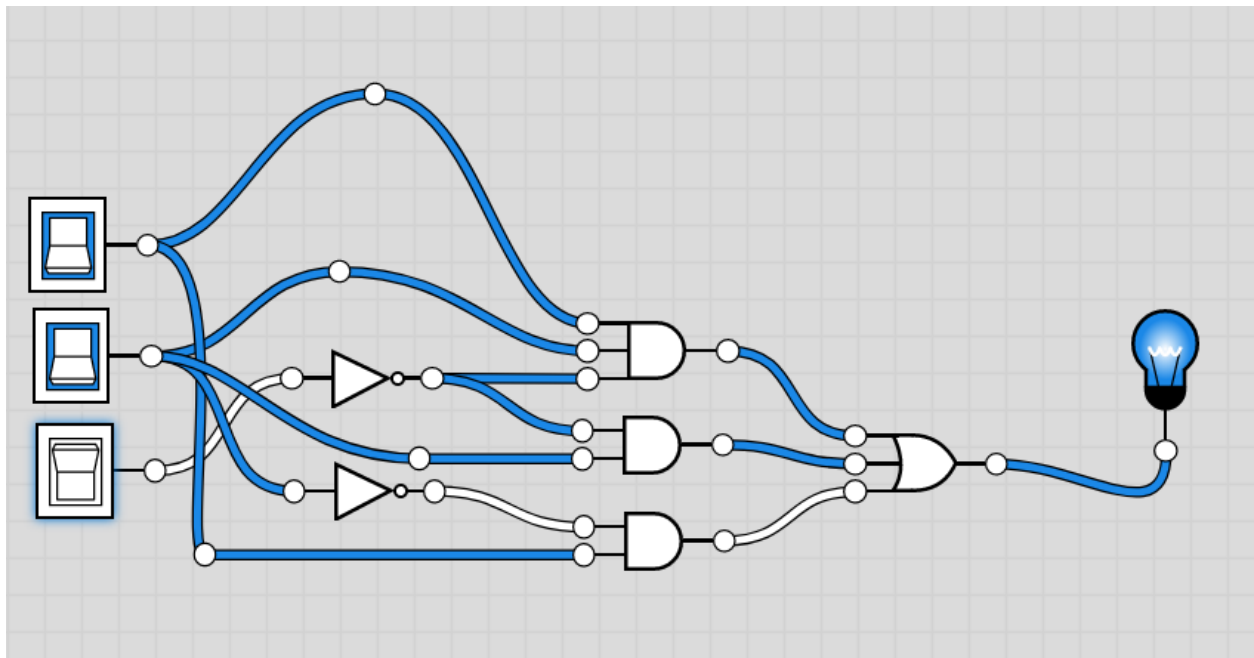
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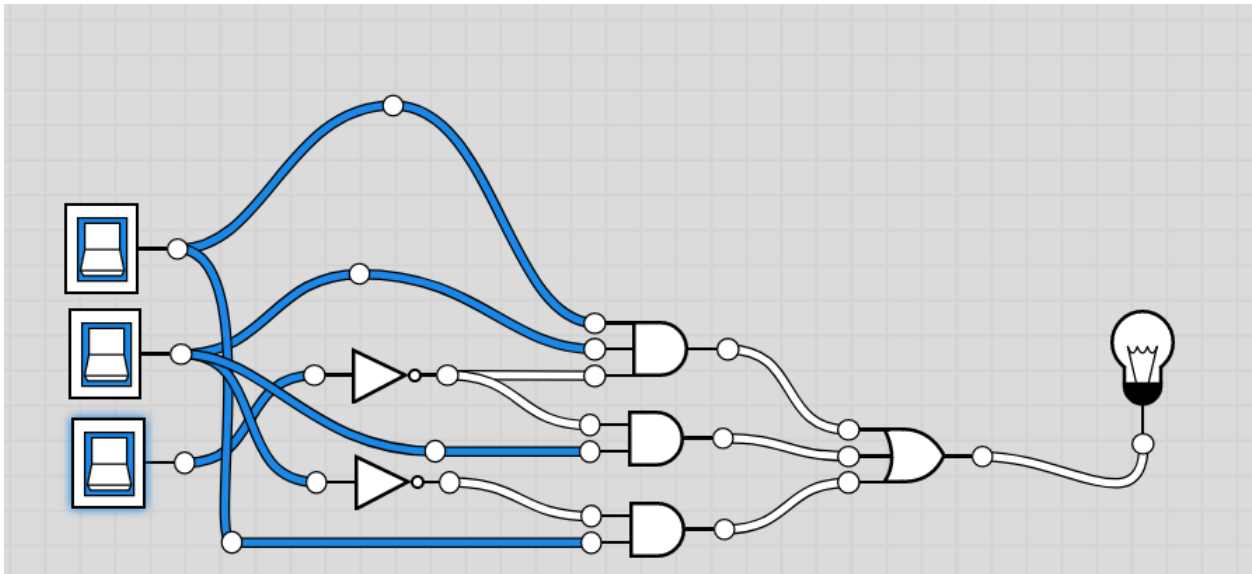
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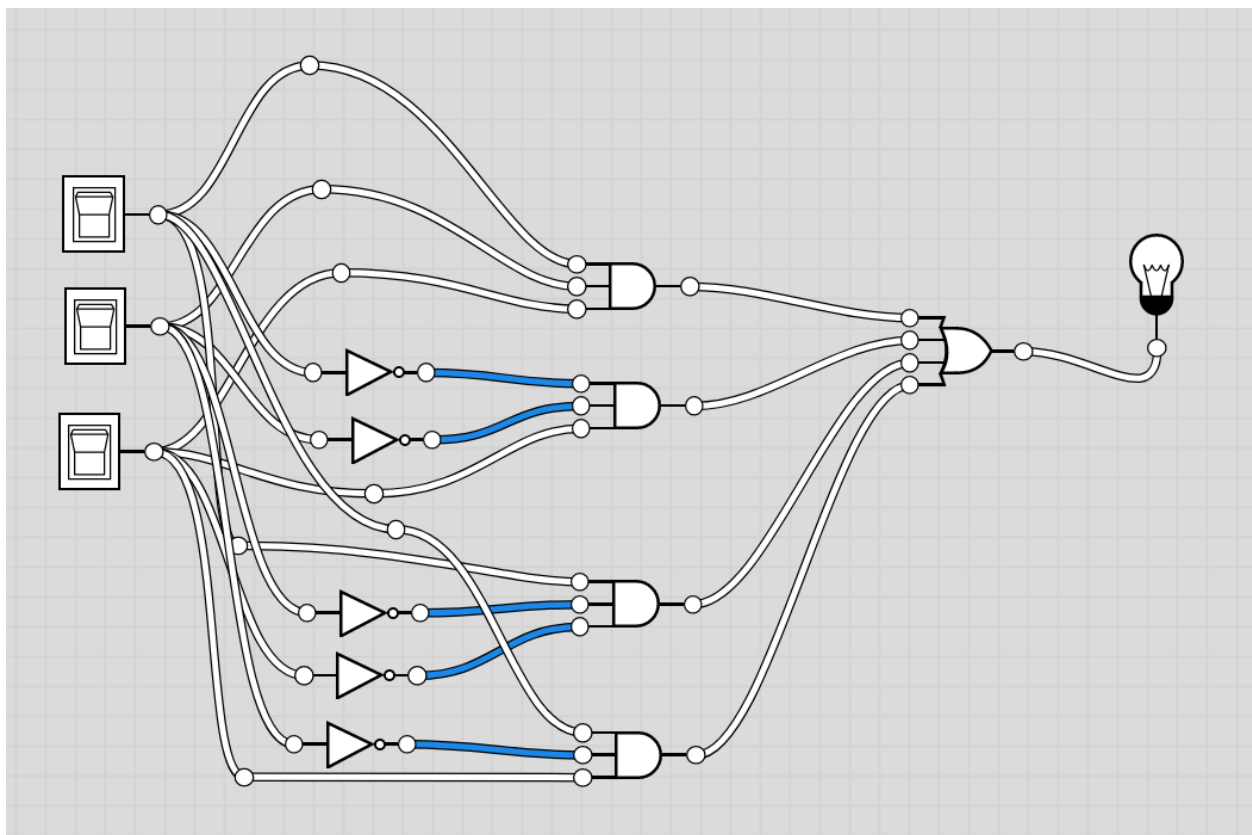
QUESTION 1 COMPLETED

QUESTION: 2

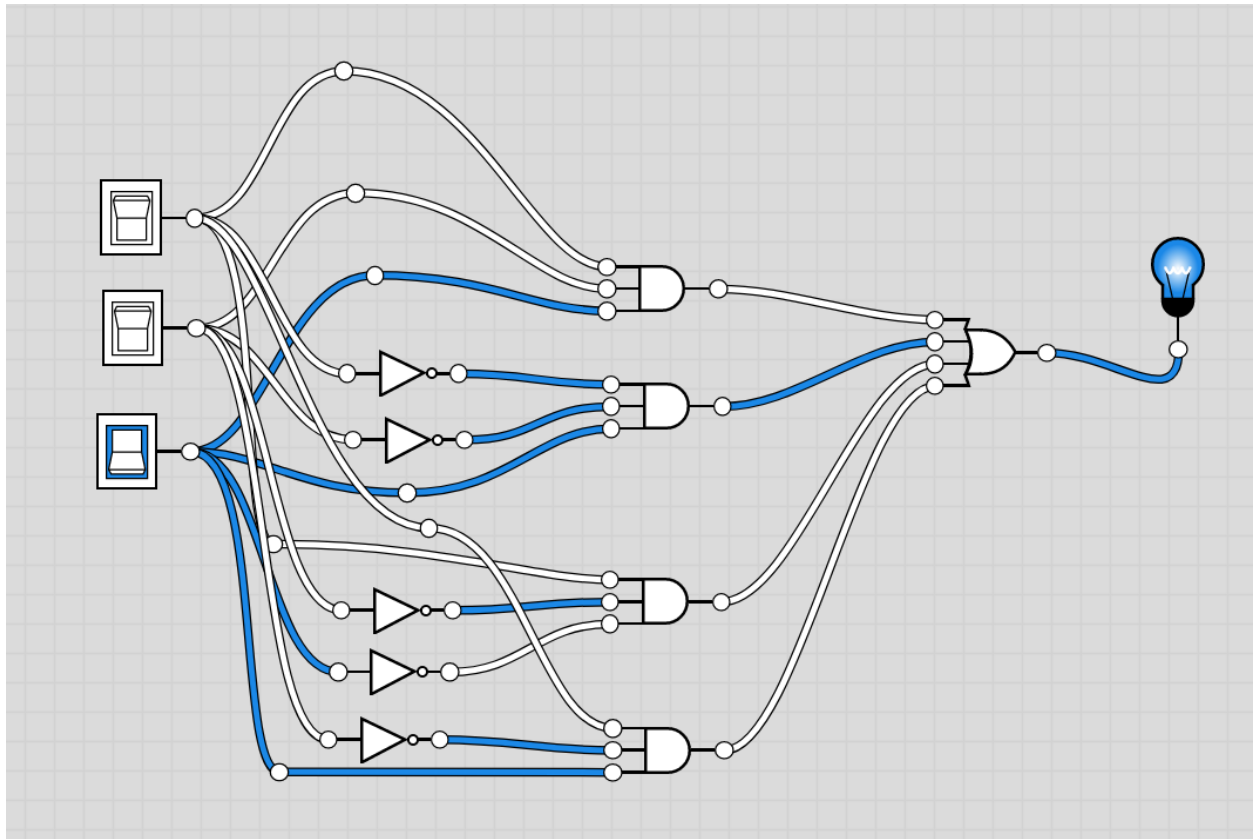
PART 1:

CIRCUIT DIAGRAM:

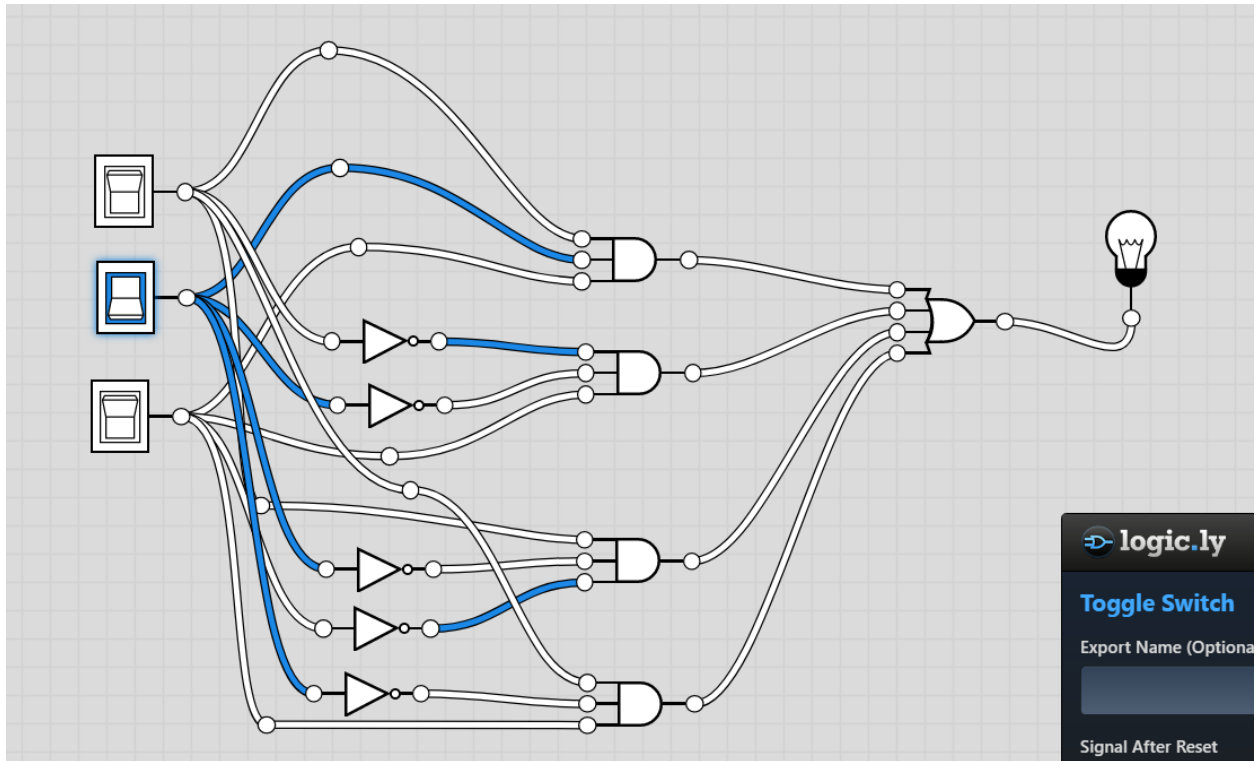
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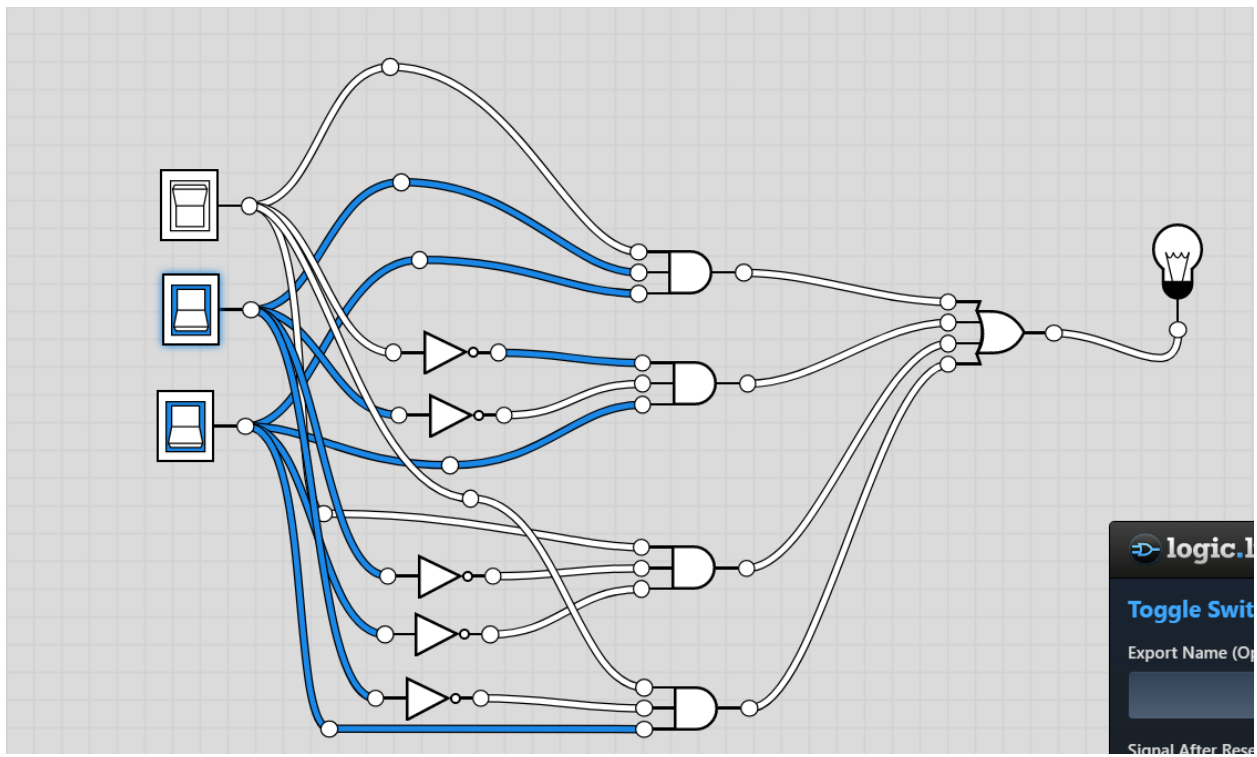
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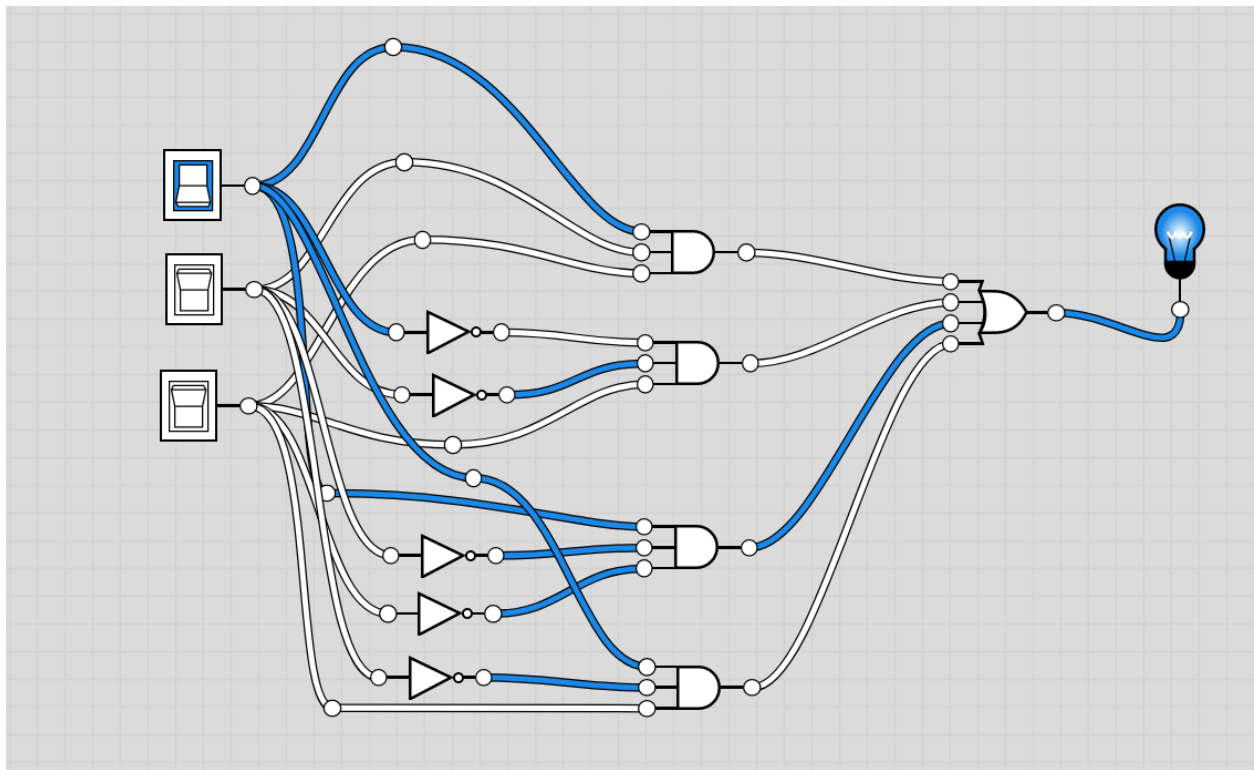
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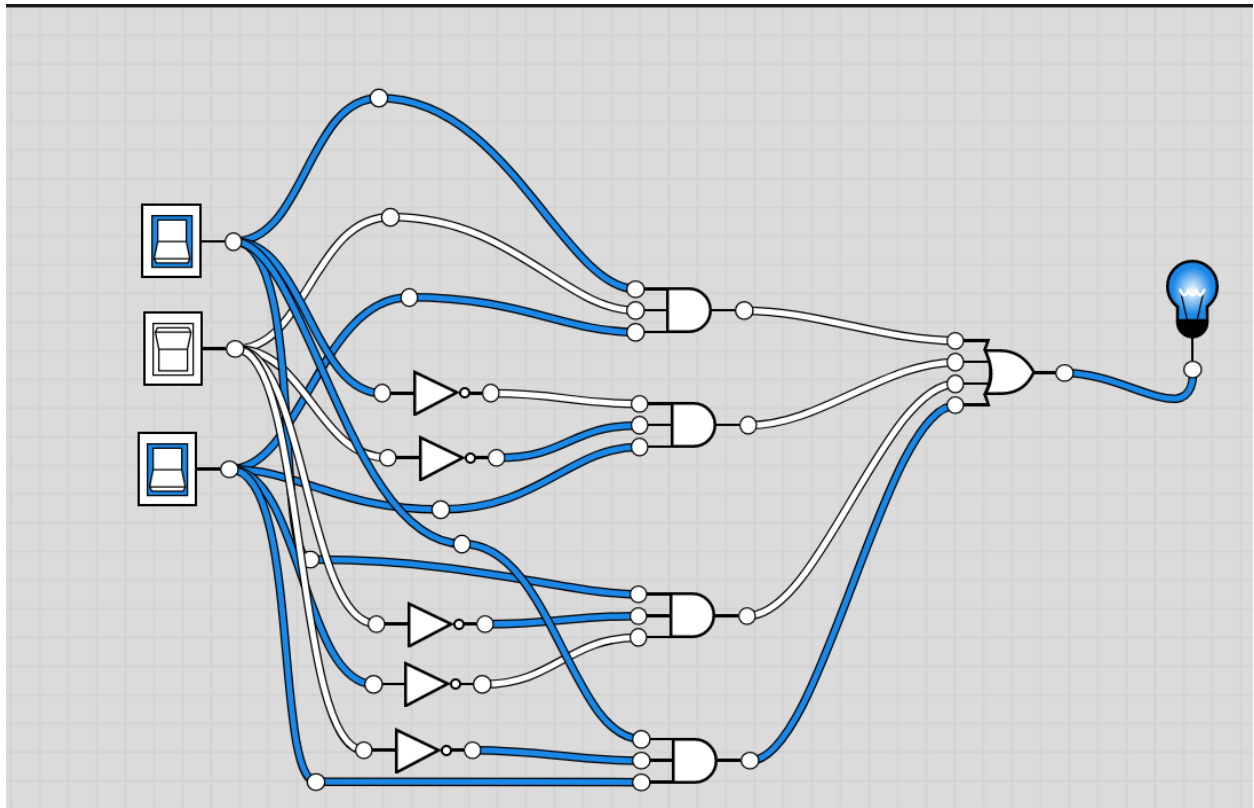
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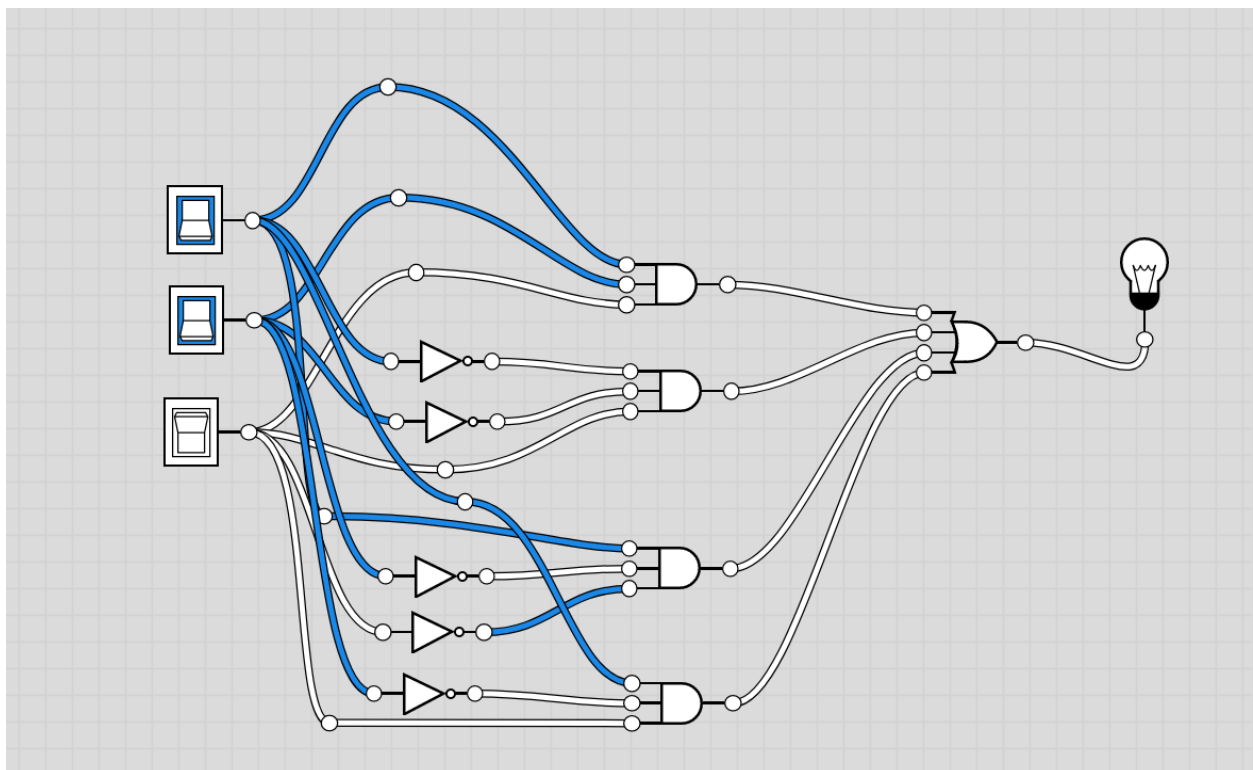
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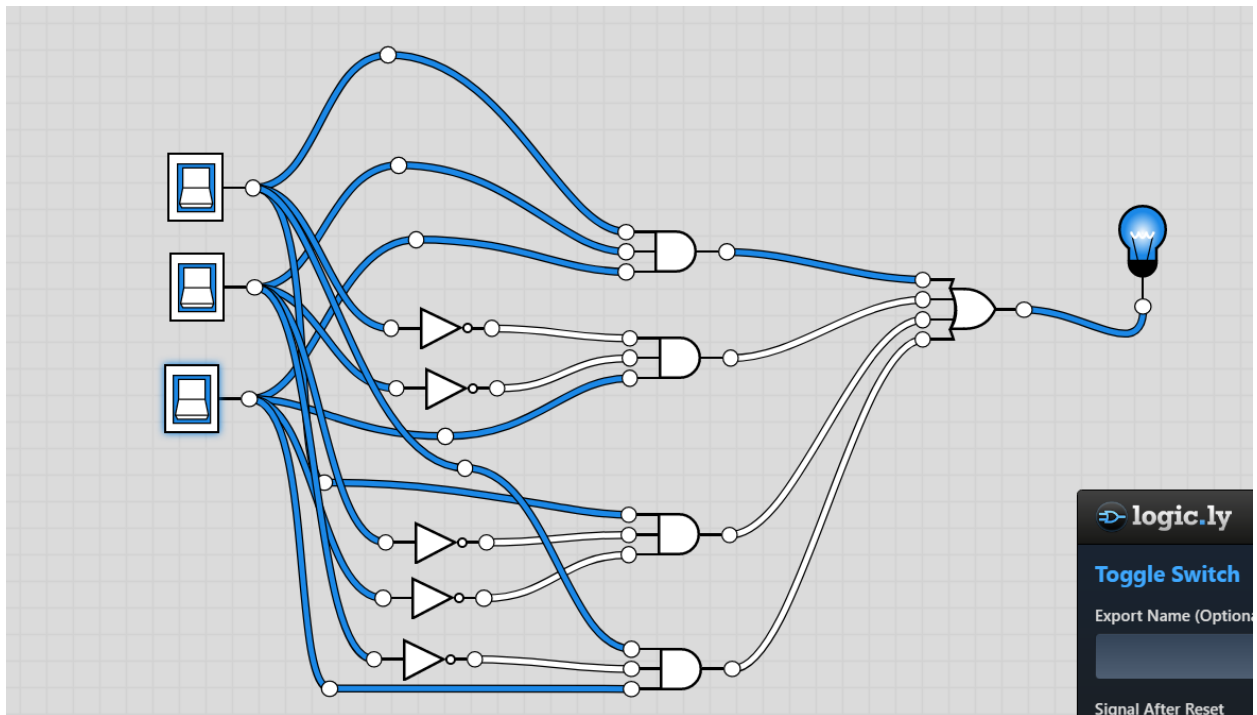
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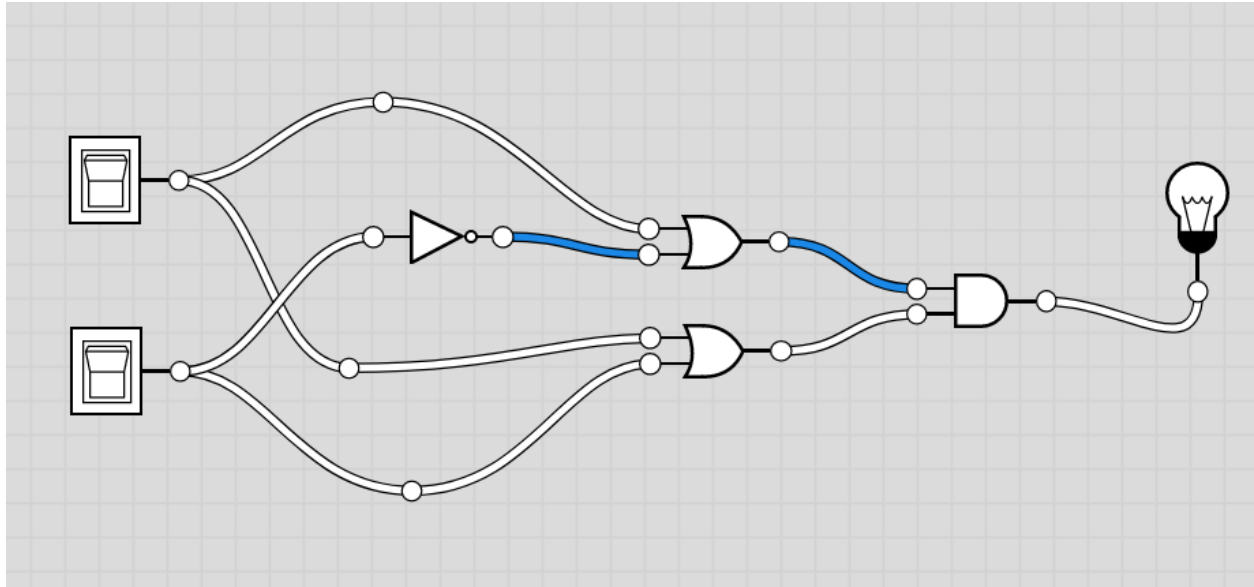


A	B	C	R
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	0
1	0	0	1
1	0	1	1
1	1	0	0
1	1	1	1

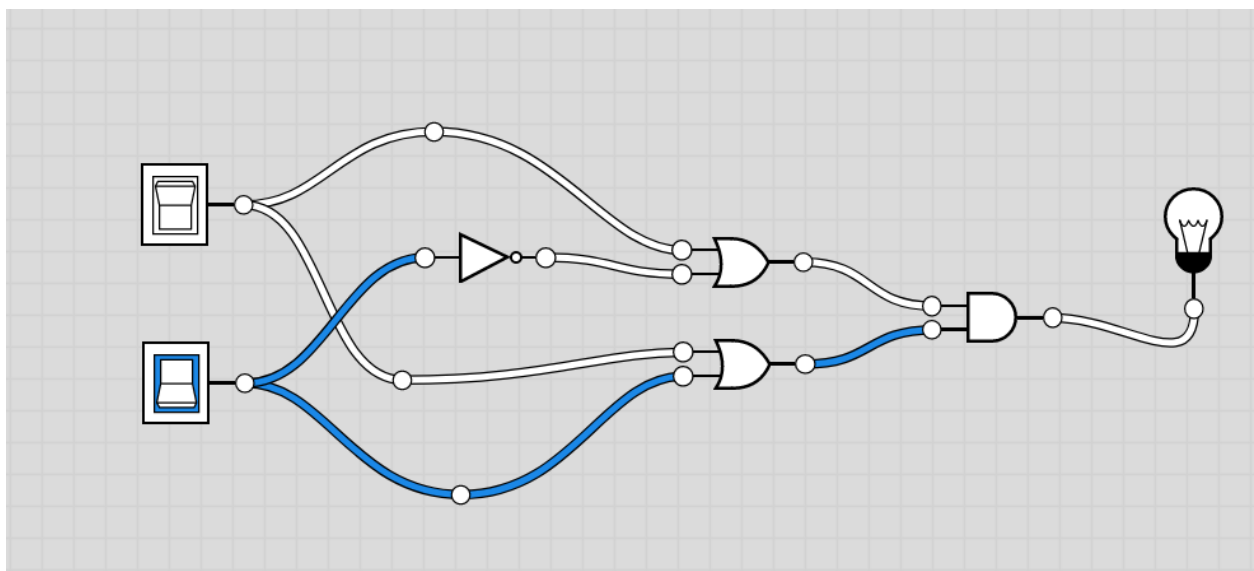
Part 2:

Circuit Diagram:

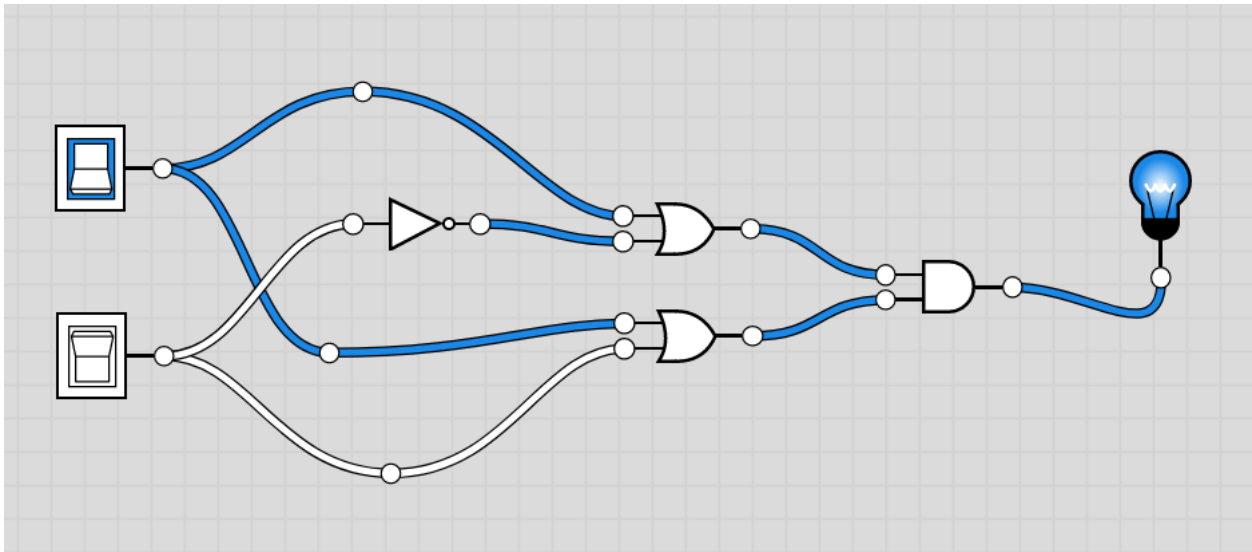
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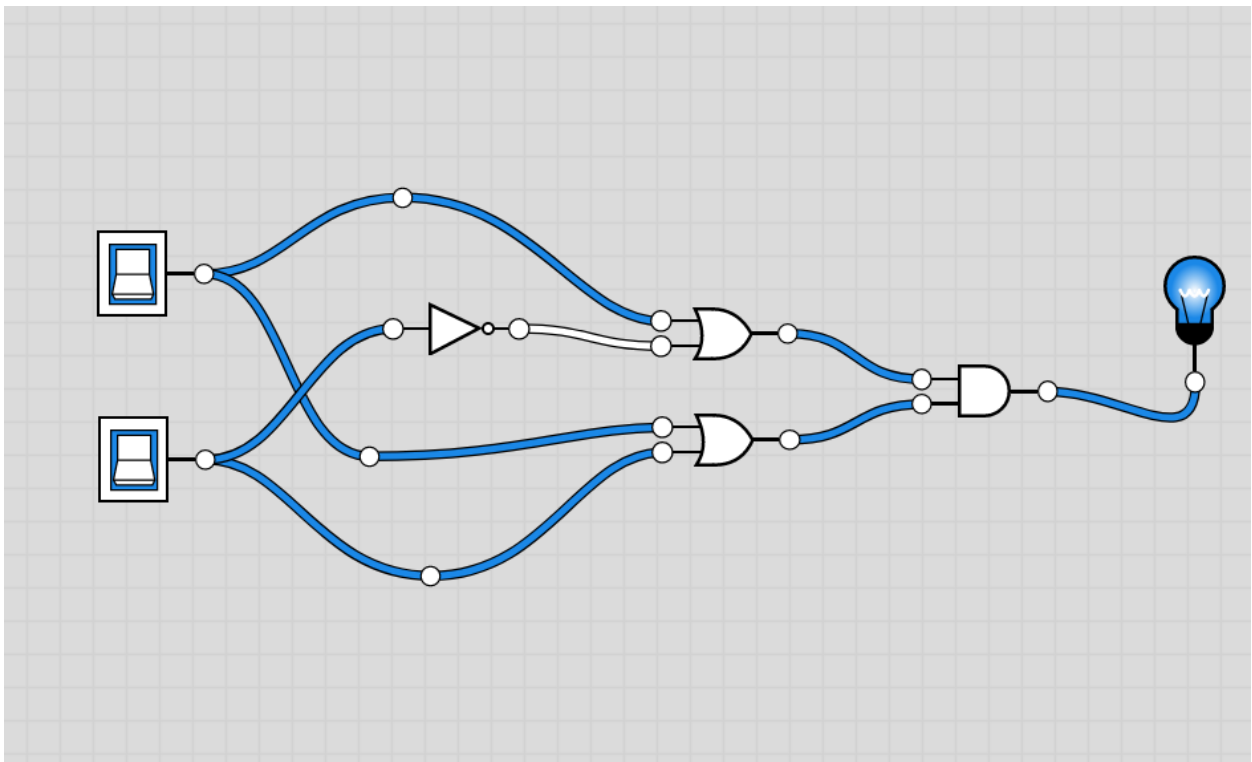
01



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11



Truth Table:

A	B	R
0	0	0
0	1	0
1	0	1
1	1	1

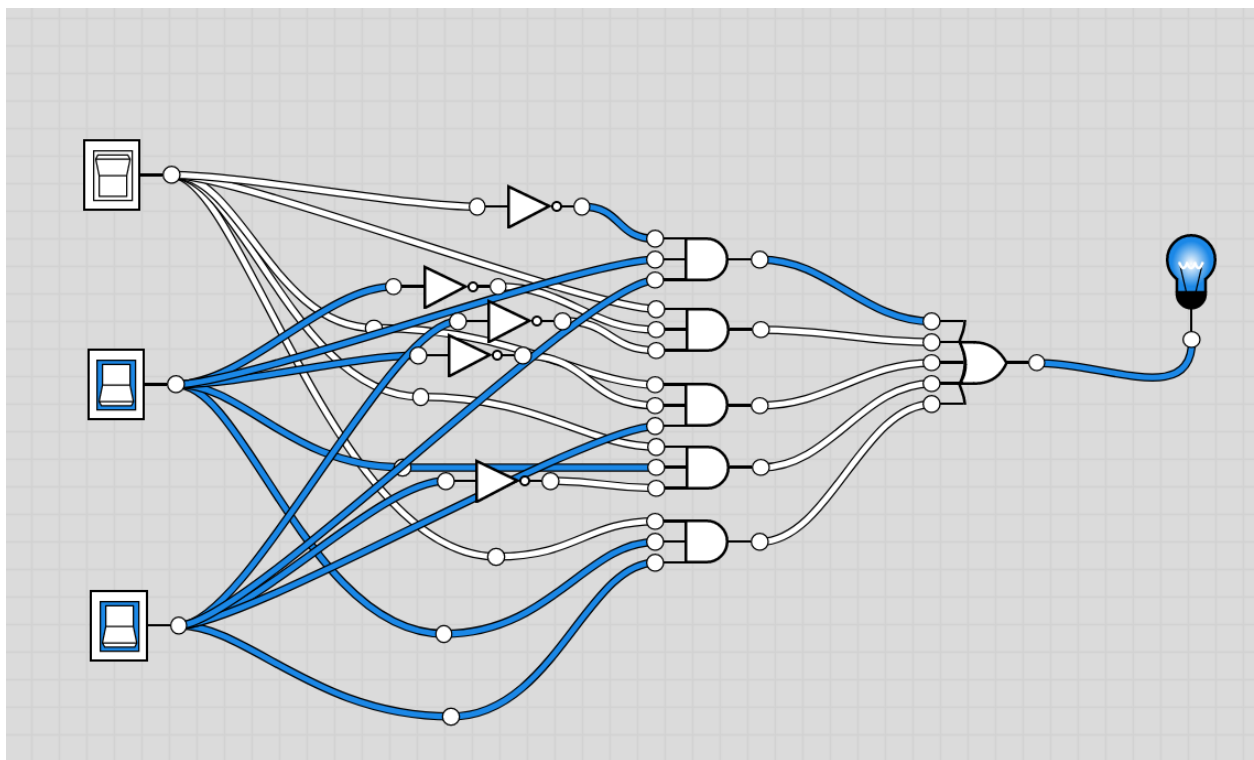
Question 2 Completed

Question 3:

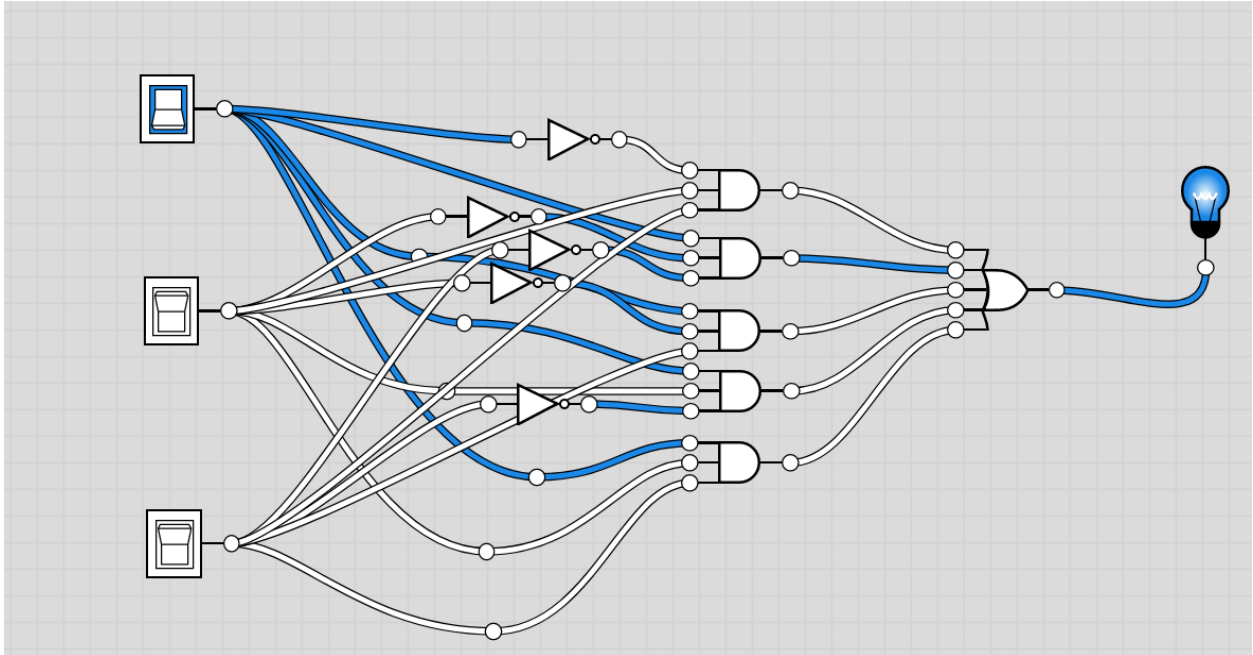
Expression Using SOP:

$$A'BC + AB'C' + AB'C + ABC' + ABC$$

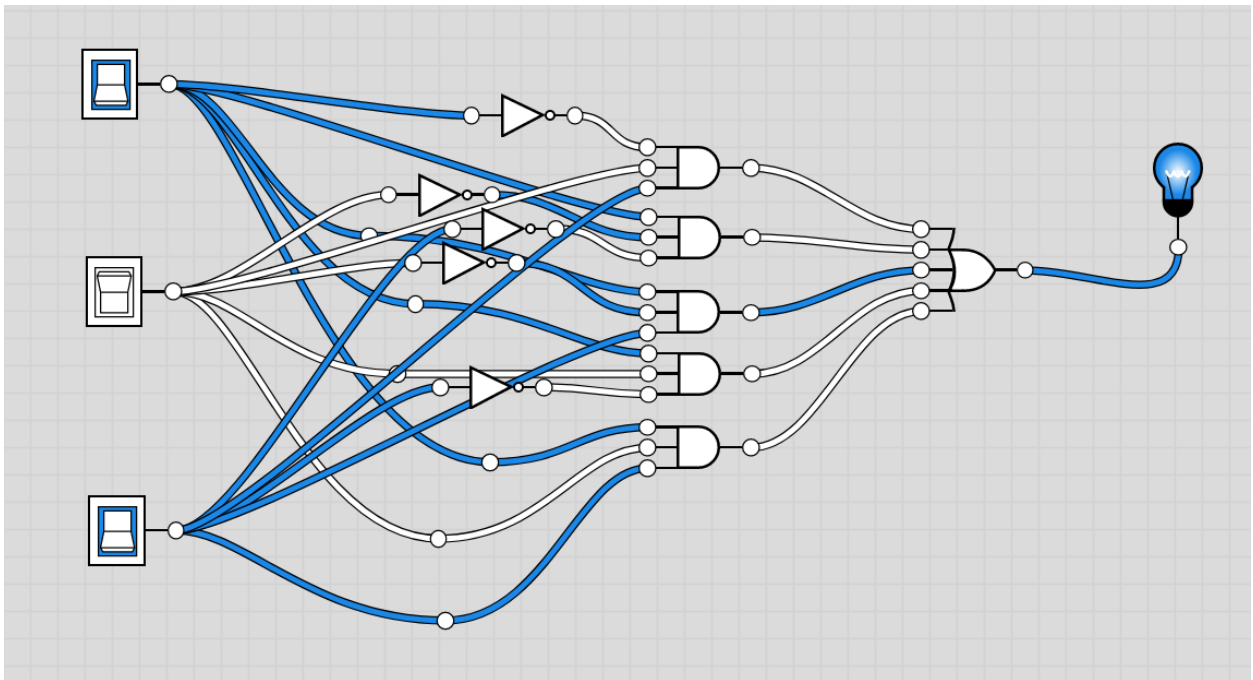
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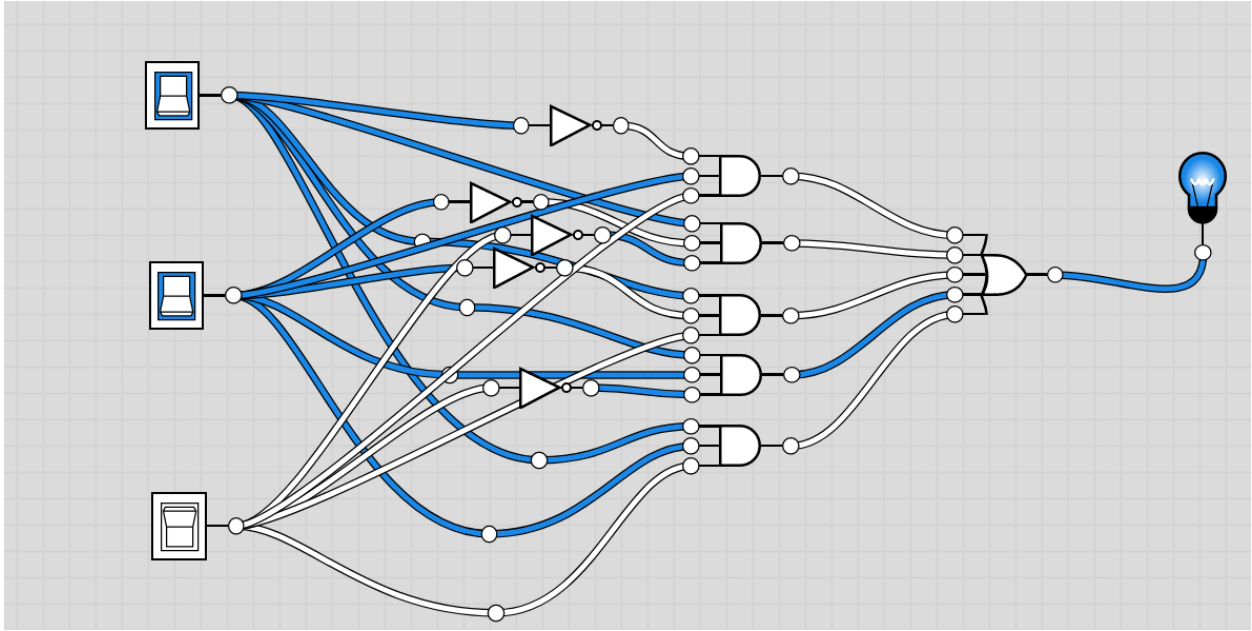
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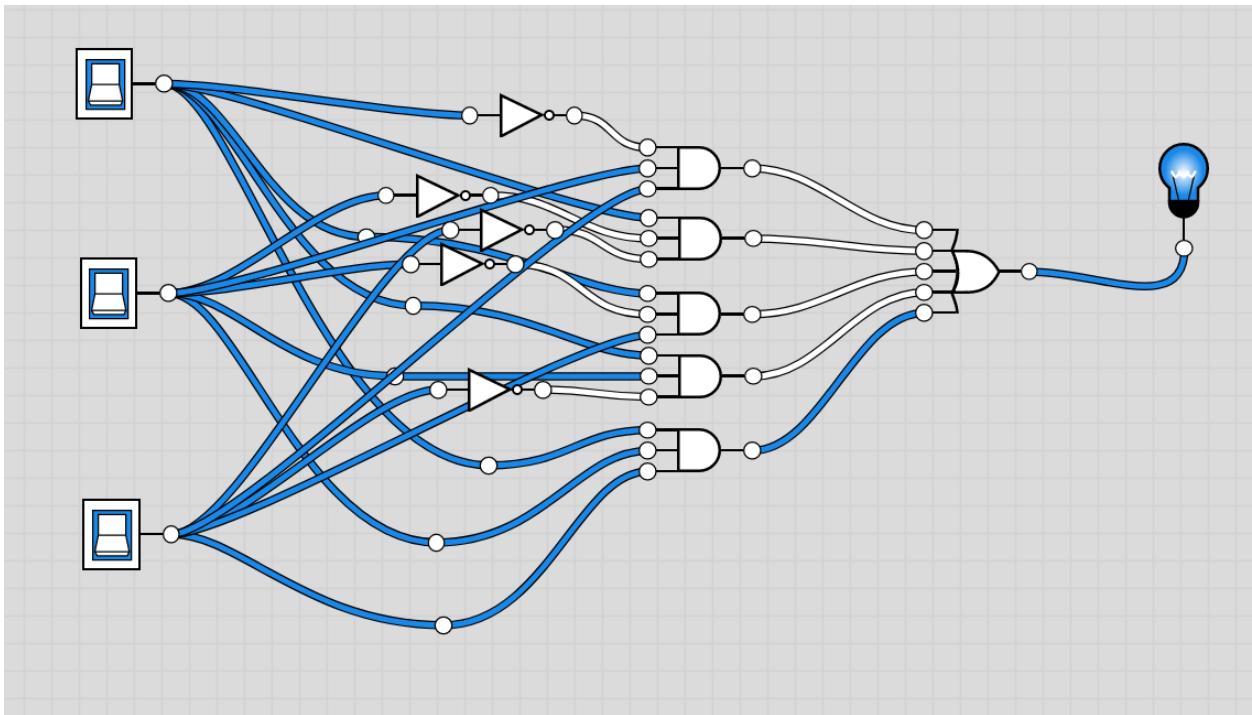
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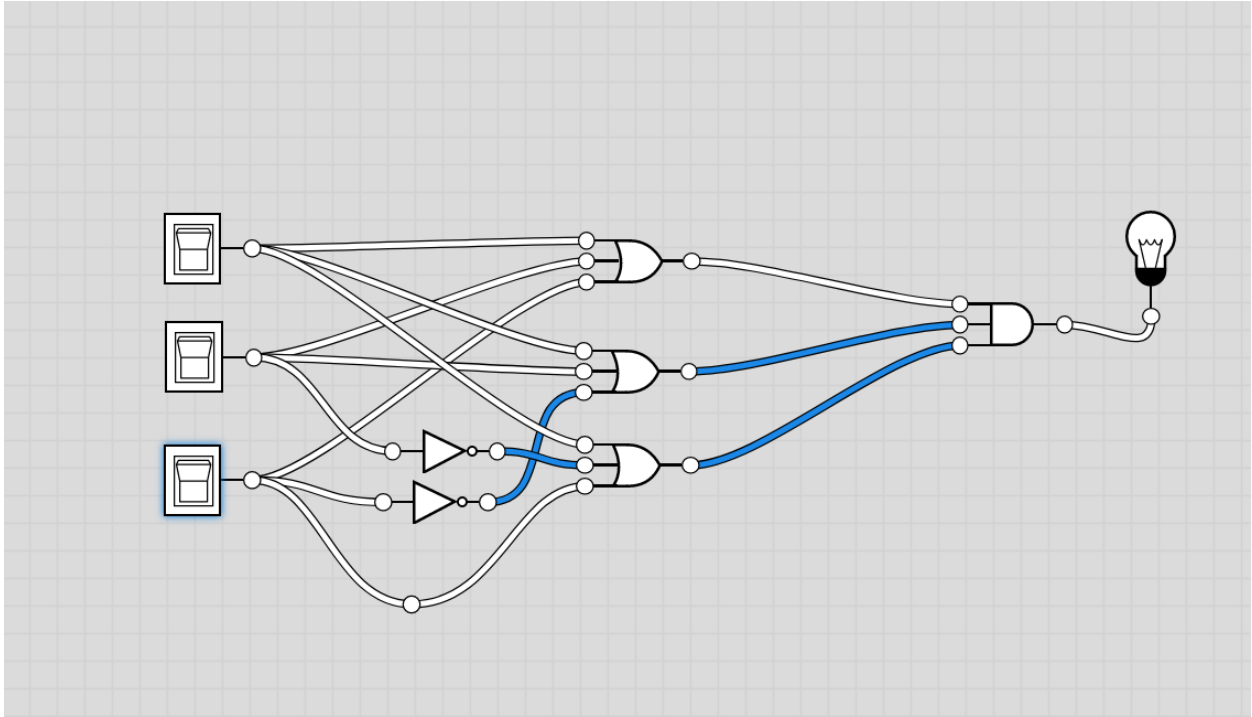
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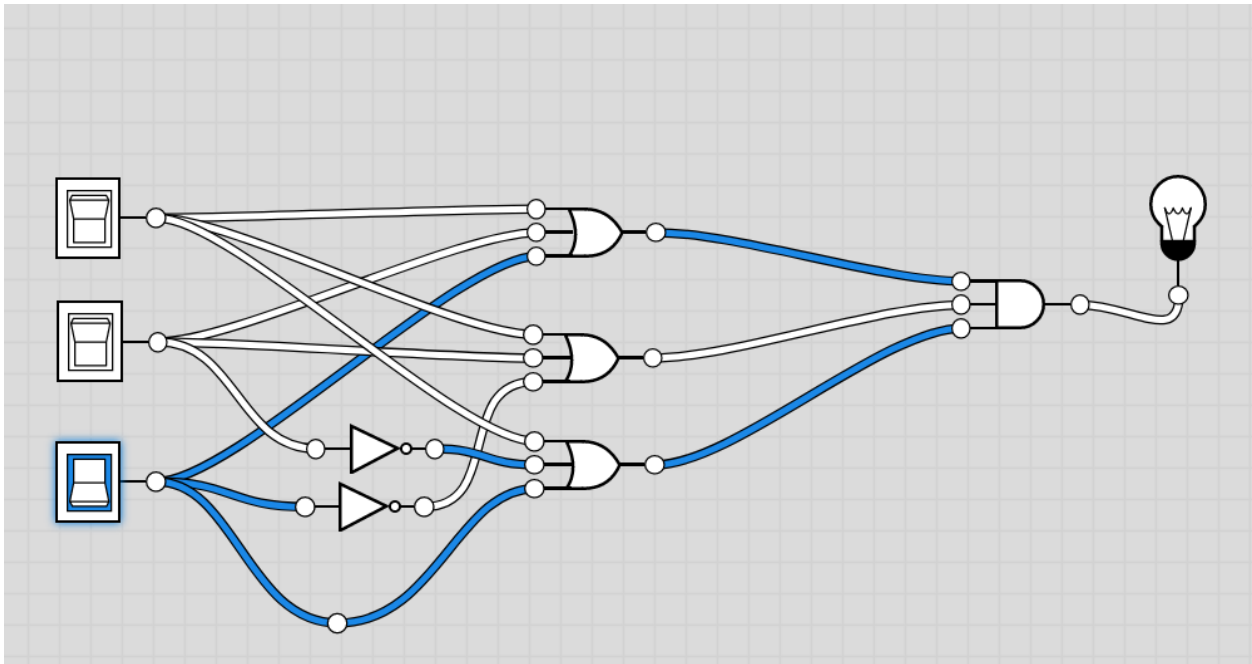
EXPRESSION OF POS:

$$(A+B+C). (A+B+C'). (A+B'+C)$$

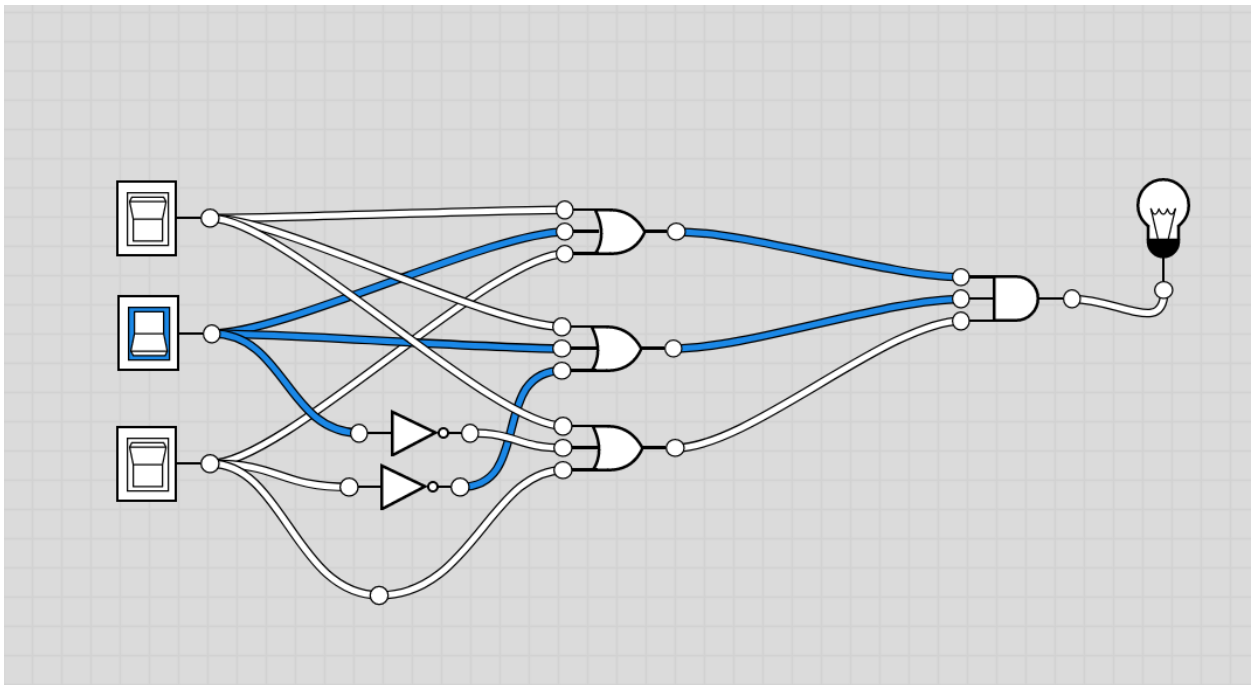
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QUESTION 3 COMPLETED

Question:1