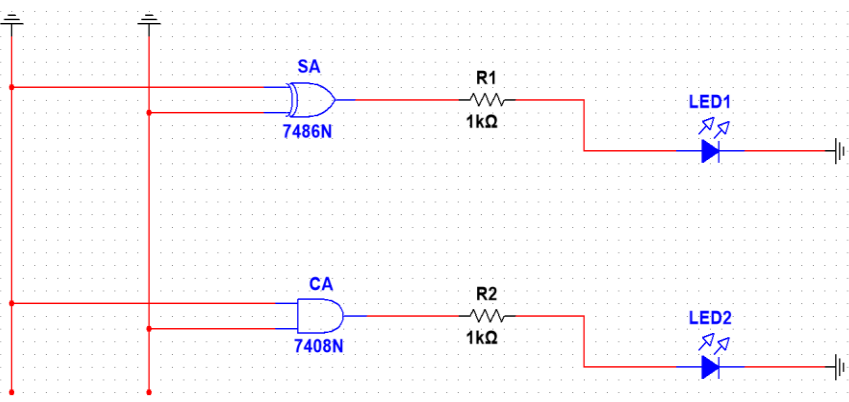
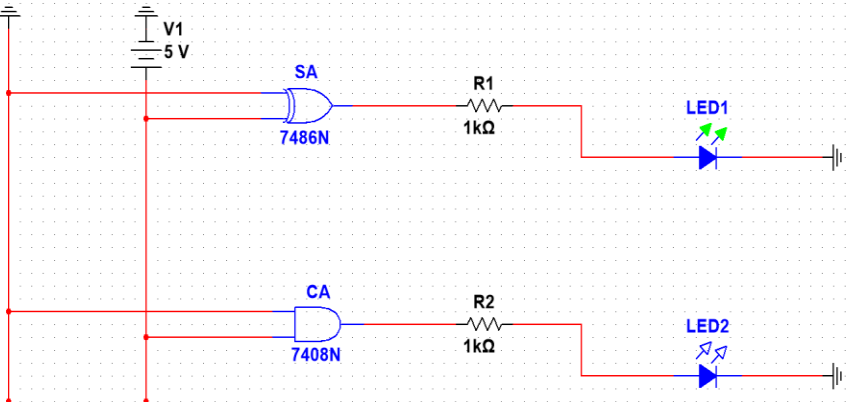


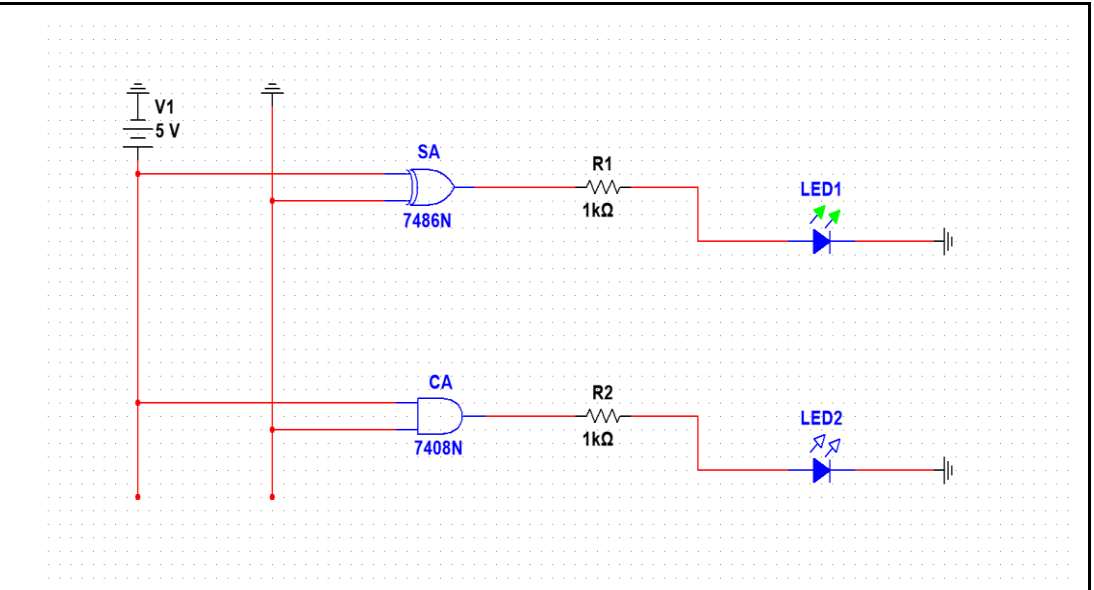
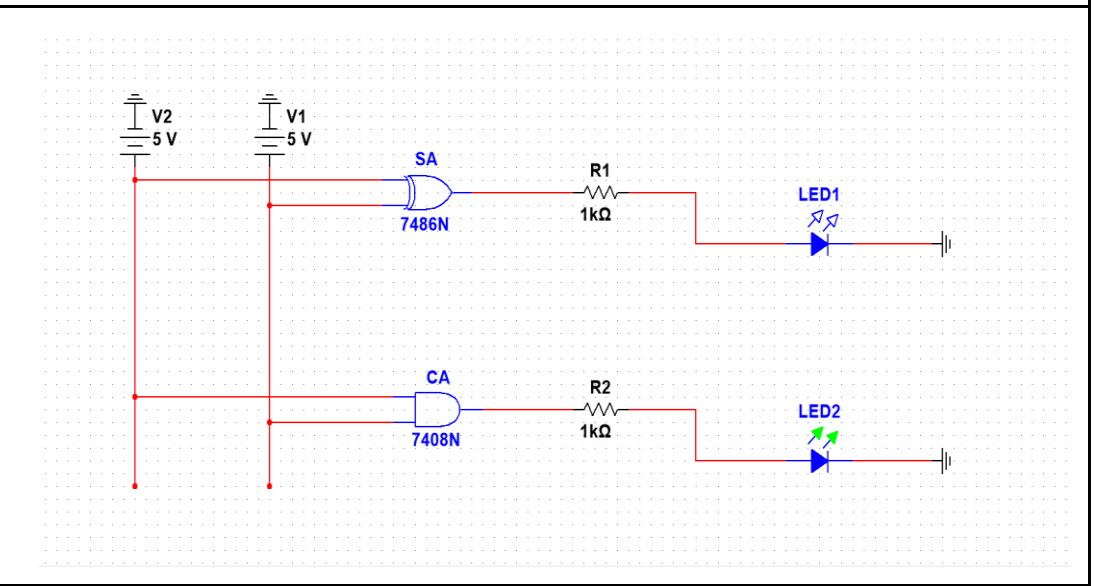
AIM - To study and verify truth table for half adder and half subtractor circuits using Multisim Software

HALF ADDER

Expression for Sum, $S=A \oplus B$

Expression for Carry, $C=A.B$

A	B	S	C	
0	0	0	0	
0	1	1	0	

1	0	1	0	
1	1	0	1	

HALF SUBTRACTOR

Expression for Difference, $D = A \oplus B$

Expression for Borrow, $B = \bar{A}.B$

A	B	D	B	
0	0	0	0	
0	1	1	1	

1	0	1	0	
1	1	0	0	

Conclusion- We have successfully verified the truth table for half adder and half subtractor.