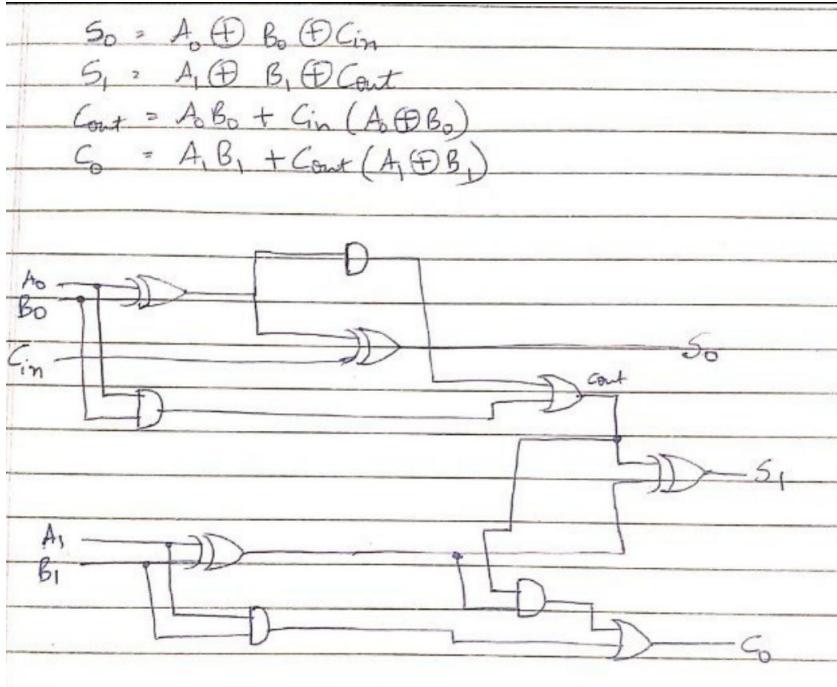
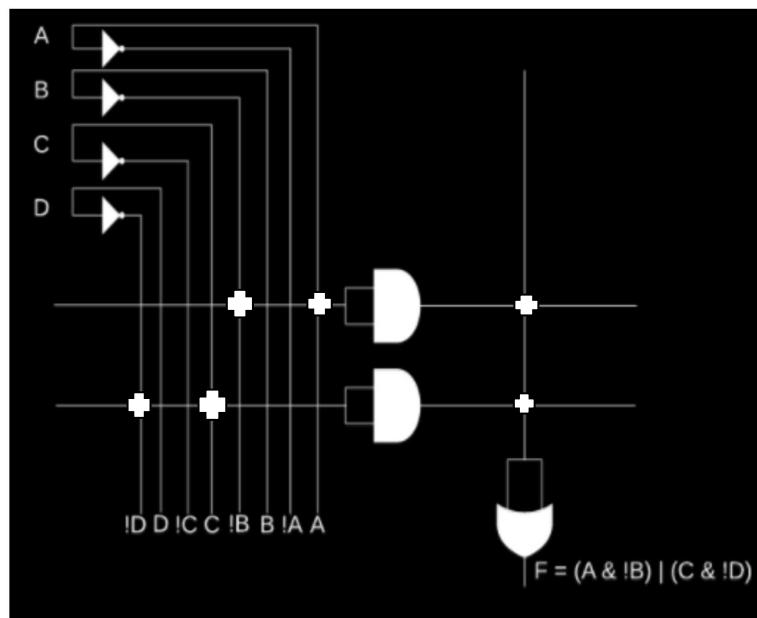


- 1) Using only logic gates, design a 2-bit full adder with carry.
 A and B are inputs, Ci is carry in, Si is output and Co is carry out.



- 2) Show how the logic equation **(A AND NOT(B)) OR (C AND NOT(D))** can be implemented using the following:



RAM CONTENTS				
ADDRESS				OUTPUT Data
A	B	C	D	F
0	0	0	0	0
0	0	0	1	0
0	0	1	0	1
0	0	1	1	0
0	1	0	0	0
0	1	0	1	0
0	1	1	0	1
0	1	1	1	0
1	0	0	0	1
1	0	0	1	1
1	0	1	0	1
1	0	1	1	1
1	1	0	0	0
1	1	0	1	0
1	1	1	0	1
1	1	1	1	0

When A is ANDed with complement of B OR if C is ANDed with complement of D, the above is the only possible solution.