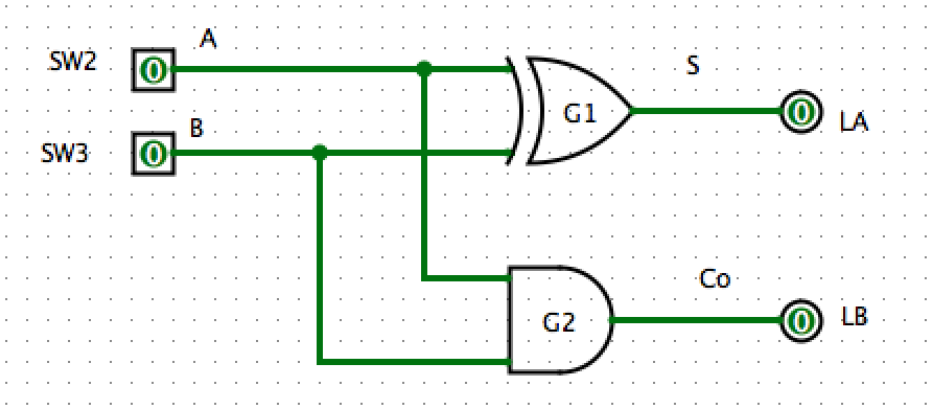
Use the instructions for Lab 2 found in the textbook companion site computersytemsbook.com to complete this worksheet. Since this is a virtual lab, you will have to ignore the references to IC 7400 series chips and build the circuits in Logisim. Complete the truth tables, include a screenshot for each part, and submit this worksheet for ES11/Lab2 in Blackboard. For your filename, use your UIS username and ES11. Mine would be mdavi03sES11. This exercise is worth 15 points

1. The Half Adder (5 Points)

A	B	Co	S
0	0	0	0
0	1	0	1
1	0	0	1
1	1	1	0



Complete table for Figure 2

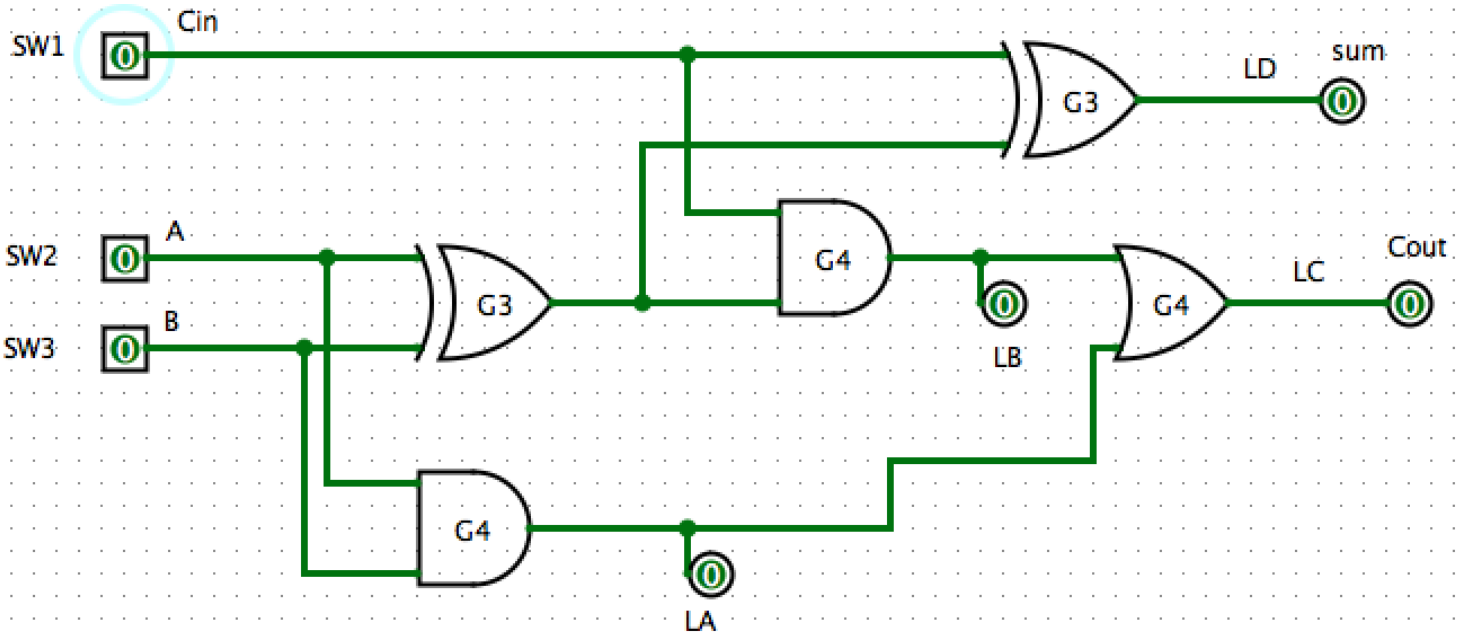
Include a screenshot of Logisim Circuit for Figure 2

2. The Full Adder (5 Points)

C in	A	B			C out	Sum
SW1	SW2	SW3	LA	LB	LC	LD
0	0	0	0	0	0	0
0	0	1	0	0	0	1
0	1	0	0	0	0	1
0	1	1	1	0	1	0
1	0	0	0	0	0	1
1	0	1	0	1	1	0
1	1	0	0	1	1	0
1	1	1	1	0	1	1

Complete table for Figure 4

Include a screenshot of Logisim Circuit for Figure 4

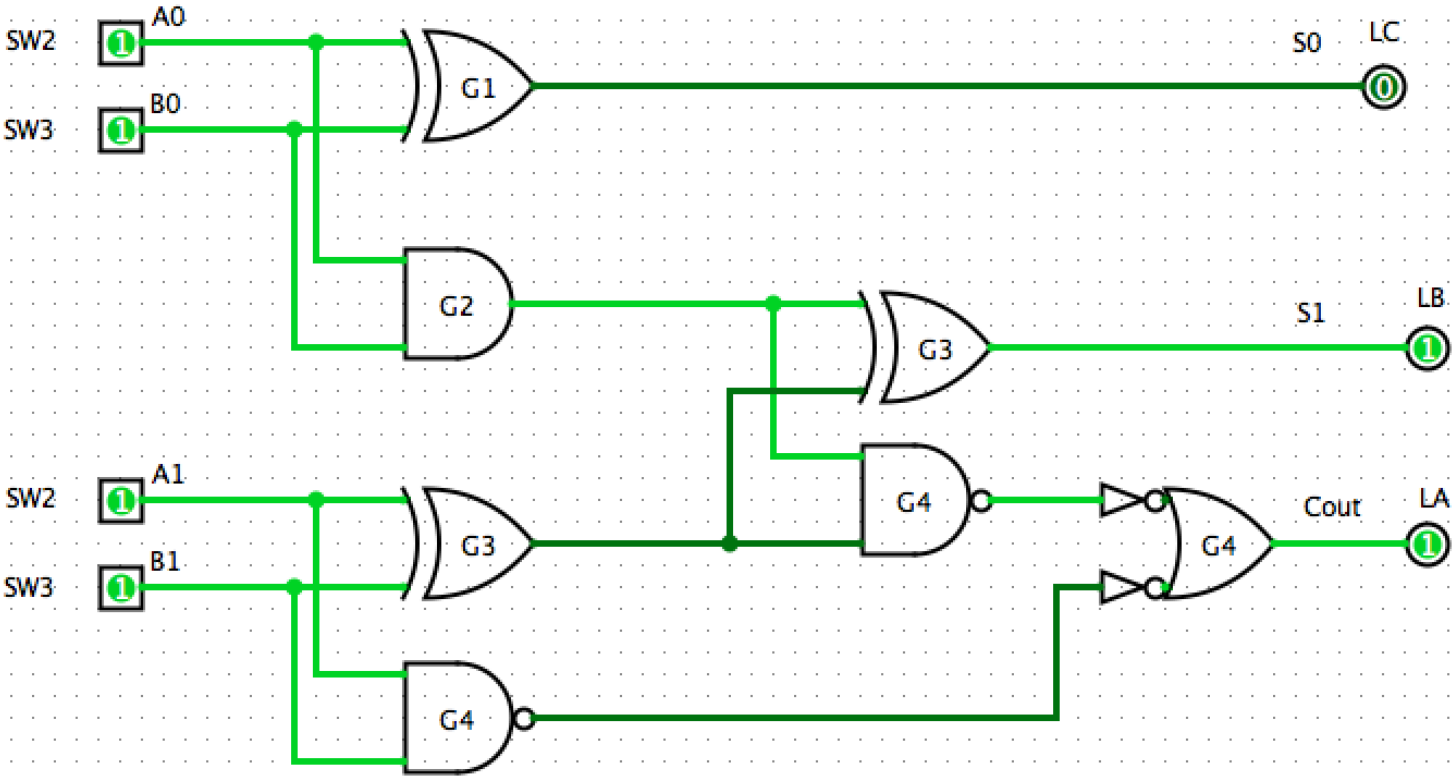

SW1
Cin
SW2
A
SW3
B
G3
G4
G4
G3
LD
sum
G4
LC
Cout
LB
LA

3. A Two-Bit Adder (5 Points)

A		B		Sum			Decimal		
A1	A0	B1	B0	C out	S1	S0	A	B	Sum
0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	1	0	1	1
0	0	1	0	0	1	0	0	2	2
0	0	1	1	0	1	1	0	3	3
0	1	0	0	0	0	1	1	0	1
0	1	0	1	0	1	0	1	1	2
0	1	1	0	0	1	1	1	2	3
0	1	1	1	1	0	0	1	3	4
1	0	0	0	0	1	0	2	0	2
1	0	0	1	0	1	1	2	1	3
1	0	1	0	1	0	0	2	2	4
1	0	1	1	1	0	1	2	3	5
1	1	0	0	0	1	1	3	0	3
1	1	0	1	1	0	0	3	1	
1	1	1	0	1	0	1	3	2	5
1	1	1	1	1	1	0	3	3	6

Complete table for Figure 5

Include a screenshot of Logisim Circuit for Figure 5


SW2
A0
SW3
B0
G1
S0
LC
G2
G3
S1
LB
SW2
A1
SW3
B1
G3
G4
G4
Cout
LA
G4