

Student Names: Elif Güler, Samed Düzçay
Student IDs: 2015400099, 2015400027
Group ID: 5
Session: 1

CMPE 240 Experiment 2 Preliminary Work

Truth Table:

#	X4	X3	X2	X1	X0	F
0	0	0	0	0	0	0
1	0	0	0	0	1	0
2	0	0	0	1	0	1
3	0	0	0	1	1	1
4	0	0	1	0	0	0
5	0	0	1	0	1	1
6	0	0	1	1	0	0
7	0	0	1	1	1	1
8	0	1	0	0	0	1
9	0	1	0	0	1	0
10	0	1	0	1	0	1
11	0	1	0	1	1	0
12	0	1	1	0	0	1
13	0	1	1	0	1	0
14	0	1	1	1	0	1
15	0	1	1	1	1	0
16	1	0	0	0	0	0
17	1	0	0	0	1	0
18	1	0	0	1	0	0
19	1	0	0	1	1	1
20	1	0	1	0	0	0
21	1	0	1	0	1	1
22	1	0	1	1	0	1
23	1	0	1	1	1	1
24	1	1	0	0	0	1
25	1	1	0	0	1	0
26	1	1	0	1	0	0
27	1	1	0	1	1	0
28	1	1	1	0	0	0
29	1	1	1	0	1	0
30	1	1	1	1	0	0
31	1	1	1	1	1	1

Student Names: Elif Güler, Samed Düzçay
Student IDs: 2015400099, 2015400027
Group ID: 5
Session: 1

List of components used in the design:

1. Multiplexer (8x1)
2. Decoder (2x4)
3. 2 not gates

(p.s. we had to use a splitter since otherwise Logisim won't allow us to use the bits of a 2-bit input separately, it's actually not a part of the design)

Circuit:

