

Part II of Homework 4

S2	S1	S0	G	N2	N1	N0	W	X	Y	Z
0	0	0	0	0	0	0	1	0	0	0
0	0	0	1	0	0	1	1	0	0	0
0	0	1	0	0	1	1	0	0	0	0
0	0	1	1	0	1	0	0	0	0	0
0	1	0	0	0	1	1	0	0	1	0
0	1	0	1	0	1	1	0	0	1	0
0	1	1	0	0	0	1	1	1	1	0
0	1	1	1	1	0	0	1	1	1	0
1	0	0	0	0	1	0	0	0	1	1
1	0	0	1	1	0	1	0	0	1	1
1	0	1	0	1	1	0	1	0	1	0
1	0	1	1	1	1	0	1	0	1	0
1	1	0	0	0	0	0	0	1	0	1
1	1	0	1	1	0	0	0	1	0	1
1	1	1	0	1	1	0	0	1	0	1
1	1	1	1	X	X	X	X	X	X	X
1	1	1	1	X	X	X	X	X	X	X

N2 K-Map = $S2S0 + GS2 + GS1S0$

GS2\S1S0	00	01	10	11
00	0	0	0	0
01	0	1	X	0
10	1	1	X	1
11	0	0	1	0

N0 K-Map = $G'S2'S0 + GS1'S0' + S2'S1S0'$

GS2\S1S0	00	01	10	11
00	0	1	0	1
01	1	1	X	0
10	0	1	X	1
11	0	1	0	1

N1 K-Map = $G'S2S1' + S1'S0 + GS1S0' + S2'$

GS2\S1S0	00	01	10	11
00	0	1	1	1
01	0	0	X	0
10	1	0	X	0
11	1	0	0	1

W K-Map = $S2'S1'S0' + S2S0 + S1S0$

GS2\S1S0	00	01	10	11
00	1	0	1	0
01	0	1	X	0
10	0	1	X	0
11	1	0	1	0

X K-Map = $S1S0 + S2S1$

GS2\S1S0	00	01	10	11
00	0	0	1	0
01	0	0	X	1
10	0	0	X	1
11	0	0	1	0

Y K-Map = $S2S1' + S2'S1$

GS2\S1S0	00	01	10	11
00	0	0	1	1
01	1	1	X	0
10	1	1	X	0
11	0	0	1	1

Z K-Map = $S2S0'$

GS2\S1S0	00	01	10	11
00	0	0	0	0
01	1	0	X	1
10	1	0	X	1
11	0	0	0	0