

Lab 1

Wednesday, January 27, 2021 11:26 AM

Section 8.1

L1	L2	L	H	Output
0	0	0	0	0
0	0	0	1	1
0	0	1	0	0
0	0	1	1	1
0	1	0	0	0
0	1	0	1	1
0	1	1	0	1
0	1	1	1	1
1	0	0	0	0
1	0	0	1	1
1	0	1	0	1
1	0	1	1	1
1	1	0	0	0
1	1	0	1	1
1	1	1	0	1
1	1	1	1	1

LH\L1L2	00	01	11	10
00	0	0	0	0
01	1	1	1	1
11	1	1	1	1
10	0	1	1	1

From K map:

$$(H) + (L2 * L) + (L1 * L2' * L)$$

Covers all 1s on the map

In gate form:

$$(H) \text{ OR } (L2 \text{ AND } L) \text{ OR } (L1 \text{ AND NOT}(L2) \text{ AND } L)$$