

논리회로 과제

201910938 김예진

<Truth Table>

x_1	x_2	x_3	$f(x_1, x_2, x_3)$
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	0

#1. $x_1'x_2x_3' + x_1'x_2x_3 + x_1x_2'x_3'$

$= x_1'x_2(x_3 + x_3') + x_1x_2'x_3'$

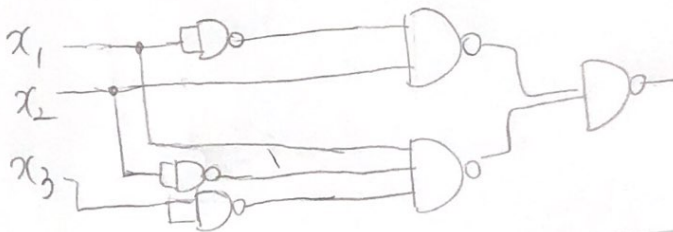
$= x_1'x_2 + x_1x_2'x_3'$

#2.

$x_1 \backslash x_2$	00	01	11	10
0	0	1	0	1
1	0	1	0	0

$\Rightarrow x_1'x_2 + x_1x_2'x_3'$

#3.



#4. $(x_1 + x_2 + x_3)(x_1' + x_2' + x_3')(x_1' + x_2' + x_3)$

$= (x_1 + x_2)(x_1' + x_2')(x_1' + x_3')$

#5.

$x_1 \backslash x_2$	00	01	11	10
0	0	1	0	1
1	0	1	0	0

 $\Rightarrow (x_1 + x_2)(x_1' + x_2')(x_1' + x_3')$

#6.

