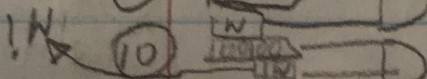
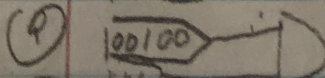
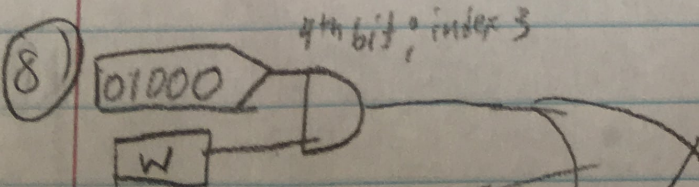
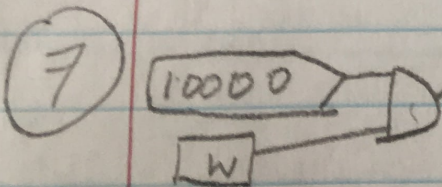
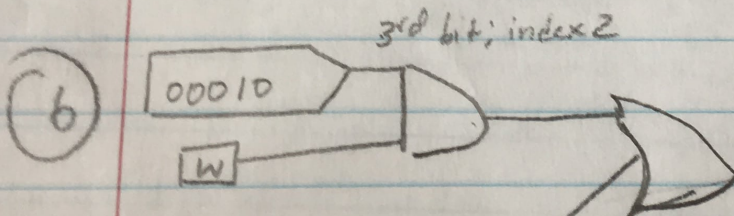
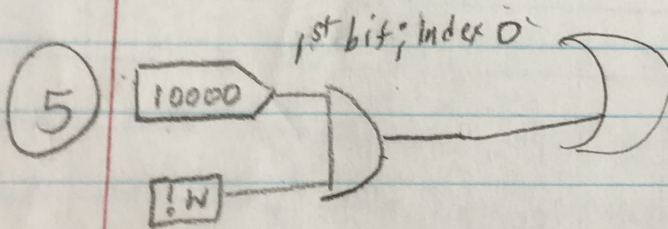
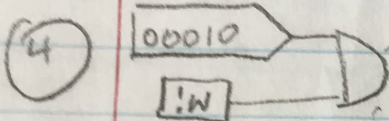
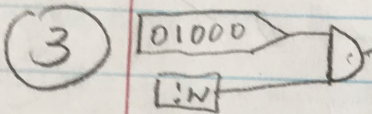
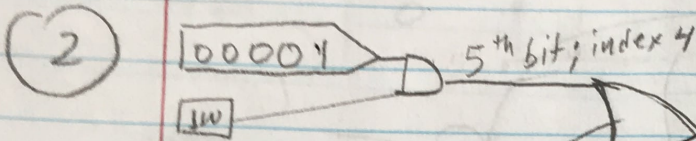
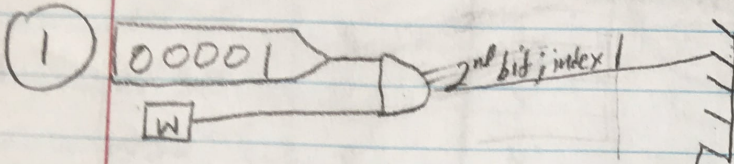


One Hot.



Yamin

Moussell

* $S_2 = \text{MSB}$

$S_0 = \text{LSB}$

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• 101

Truth Table

S_2	S_1	S_0	W	N_2	N_1	N_0	A	B	C	D
0	0	0	0	1	0	0	1	1	0	0
0	0	1	0	1	0	0	1	0	1	0
0	1	0	0	0	1	1	1	0	0	1
0	1	1	0	1	0	0	0	1	1	0
1	0	0	0	0	0	0	0	1	1	1
0	0	0	1	0	0	1	1	1	0	0
0	0	1	1	0	1	0	1	0	1	0
0	1	0	1	0	1	1	1	0	0	1
0	1	1	1	0	1	1	0	1	1	0
1	0	0	1	0	1	0	0	1	1	1

KMAP: N_2

	$S_1'S_2'$	$S_1'S_2$	S_1S_2	S_1S_2'
$W'S_0'$	1	0	X	X
$W'S_0$	1	X	X	1
WS_0'	0	X	X	0
WS_0	0	0	X	0

Boolean Equation:

$$= W'S_0 + W'S_1S_2'$$

KMAP: N_1

	$S_1'S_2'$	$S_1'S_2$	S_1S_2	S_1S_2'
$W'S_0'$	0	0	X	1
$W'S_0$	0	X	X	0
WS_0	1	X	X	1
WS_0'	0	1	X	1

Boolean Equation:

$$WS_0 + WS_2 + S_0'S_1$$

No
KMAP

	$S_1'S_2'$	$S_1'S_2$	S_1S_2	S_1S_2'
$W'S_0'$	0	0	X	1
$W'S_0$	0	X	X	0
WS_0	0	X	X	1
WS_0'	1	0	X	1

Boolean Equation:

$$WS_0'S_2' + S_0'S_1 + WS_1$$

A KMAP

	$S_1'S_2'$	$S_1'S_2$	S_1S_2	S_1S_2'
$W'S_0'$	1	0	X	1
$W'S_0$	1	X	X	0
WS_0	1	X	X	0
WS_0'	1	0	X	1

Boolean Equation:

$$S_1'S_2' + S_0'S_1$$

B KMAP

	$S_1'S_2'$	$S_1'S_2$	S_1S_2	S_1S_2'
$W'S_0'$	1	1	X	0
$W'S_0$	0	X	X	1
WS_0	0	X	X	1
WS_0'	1	1	X	0

Boolean Equation:

$$S_0S_1 + S_1'S_0'$$

KMAP

	$S_1'S_2'$	$S_1'S_2$	S_1S_2	S_1S_2'
$W'S_0'$	0	1	X	0
$W'S_0$	1	X	X	1
WS_0	1	X	X	1
WS_0'	0	1	X	0

Boolean Equation:

$$S_0 + S_2$$

- KMap D

	$S_1' S_2'$	$S_1' S_2$	$S_1 S_2$	$S_1 S_2'$
$W' S_0'$	0	1	X	1
$W' S_0$	0	X	X	0
$W S_0$	0	X	X	0
$W S_0'$	0	1	X	1

Boolean Equation.

$$S_0' S_1 + S_2$$