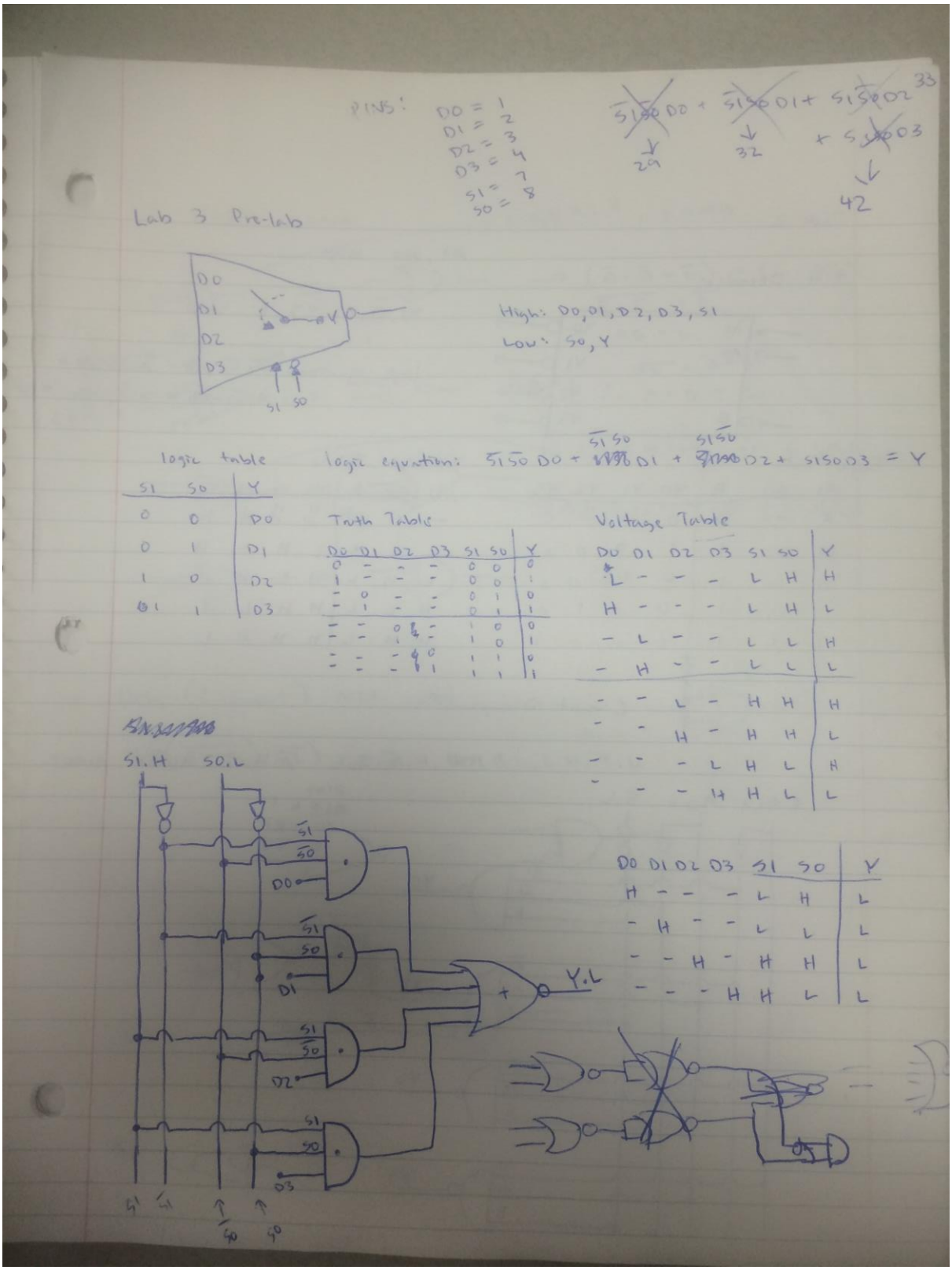
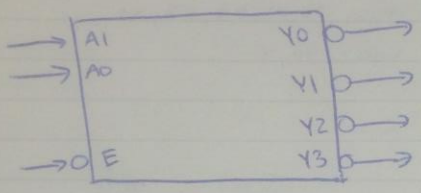

PINS:
D0 = 1
D1 = 2
D2 = 3
D3 = 4
S1 = 7
S0 = 8
29
32
42
33
Lab 3 Pre-lab
D0
D1
D2
D3
Y
S1
S0
High: D0, D1, D2, D3, S1
Low: S0, Y
logic table
S1 S0 Y
0 0 D0
0 1 D1
1 0 D2
1 1 D3
logic equation:
Truth Table
D0 D1 D2 D3 S1 S0 Y
Voltage Table
D0 D1 D2 D3 S1 S0 Y
S1.H S0.L
D0
D1
D2
D3
Y.L
D0 D1 D2 D3 S1 S0 Y

Part 2

2:4 Decoder

A1, A0 High

Y0, Y1, Y2, Y3, E Low



$= Y0 $= Y1

logic equations: $\bar{A1}\bar{A0}E + \bar{A1}A0E$ $A1\bar{A0}E$ $A1A0E$

$= Y2 $= Y3

Logic Table

A1	A0	E	Y0	Y1	Y2	Y3
-	-	0	0	0	0	0
0	0	1	1	0	0	0
0	1	1	0	1	0	0
1	0	1	0	0	1	0
1	1	1	0	0	0	1

Voltage Table

A1	A0	E	Y0	Y1	Y2	Y3
-	-	H	H	H	H	H
L	L	L	L	H	H	H
L	H	L	H	L	H	H
H	L	L	H	H	L	H
H	H	L	H	H	H	L

Circuit Diagram:

$\bar{A1}\bar{A0}E$ $\bar{A1}A0E$ $A1\bar{A0}E$ $A1A0E$

PINS
A1 = 1
A0 = 2
E = 3