

Forrest Knee

ELC 2137

Lab 3. Adders

Pre-Lab Submission Page

Full adder truth table

C_{in}	A	B	C_{out}	S	Decimal
0	0	0	0	0	0
0	0	1	0	1	1
0	1	0	0	1	1
0	1	1	1	0	2
1	0	0	0	1	1
1	0	1	1	0	2
1	1	0	1	0	2
1	1	1	1	1	3

Half adder truth table

A	B	C	S	Decimal
0	0	0	0	0
0	1	0	1	1
1	0	0	1	1
1	1	1	0	2

2-bit adder truth table

C_{in}	A_2A_1	B_2B_1	C_{out}	S_2	S_1
0	00	00	0	0	0
0	00	01	0	0	1
0	01	01	0	1	0
0	10	01	0	1	1
0	10	10	1	0	0
1	10	10	1	0	1
1	11	11	1	1	1

Decimal equivalent

C_{in}	A	B	Out
0	0	0	0
0	0	1	1
0	1	1	2
0	1	0	3
0	0	1	4
1	1	1	5
1	1	0	6
1	0	1	7