

2-bit Full Adder - MUX Implementation

a1	a0	b1	b0	cin	s1	s0	cout	s1	s0	cout
0	0	0	0	0	0	0	0	0	cin	0
0	0	0	0	1	0	1	0			
0	0	0	1	0	0	1	0	cin	cin'	0
0	0	0	1	1	1	0	0			
0	0	1	0	0	1	0	0	1	cin	0
0	0	1	0	1	1	1	0			
0	0	1	1	0	1	1	0	cin'	cin'	cin
0	0	1	1	1	0	0	1			
0	1	0	0	0	0	1	0	cin	cin'	0
0	1	0	0	1	1	0	0			
0	1	0	1	0	1	0	0	1	cin	0
0	1	0	1	1	1	1	0			
0	1	1	0	0	1	1	0	cin'	cin'	cin
0	1	1	0	1	0	0	1			
0	1	1	1	0	0	0	1	0	cin	1
0	1	1	1	1	0	1	1			
1	0	0	0	0	1	0	0	1	cin	0
1	0	0	0	1	1	1	0			
1	0	0	1	0	1	1	0	cin'	cin'	cin
1	0	0	1	1	0	0	1			
1	0	1	0	0	0	0	1	0	cin	1
1	0	1	0	1	0	1	1			
1	0	1	1	0	0	1	1	cin	cin'	1
1	0	1	1	1	1	0	1			
1	1	0	0	0	1	1	0	cin'	cin'	cin
1	1	0	0	1	0	0	1			
1	1	0	1	0	0	0	1	0	cin	1
1	1	0	1	1	0	1	1			
1	1	1	0	0	0	1	1	cin	cin'	1
1	1	1	0	1	1	0	1			
1	1	1	1	0	1	0	1	1	cin	1
1	1	1	1	1	1	1	1			