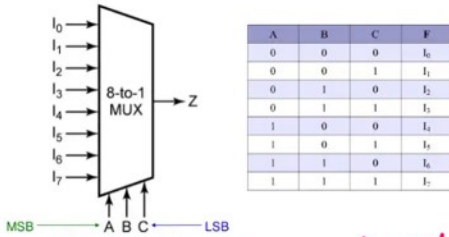


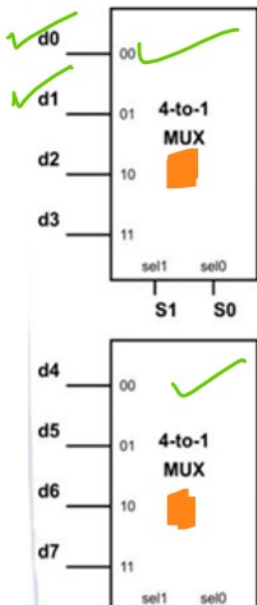
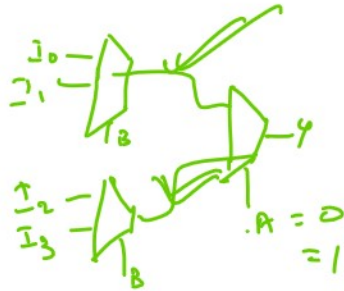
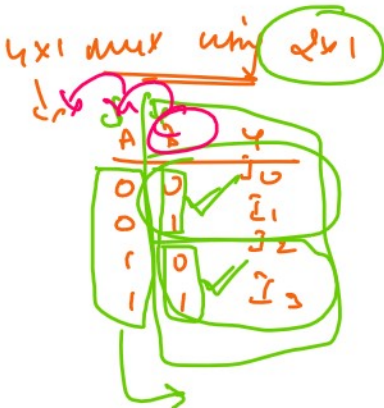
$$Z = A'.B'.I_0 + A'.B.I_1 + A.B'.I_2 + A.B.I_3$$



$\overline{A}\overline{B}\overline{C} \rightarrow I_0$
 $\overline{A}\overline{B}C \rightarrow I_1$

3 sel lines
 $2^3 = 8$
 I_0
 I_7

4 sel
 2^4 i/p
 1 o/p



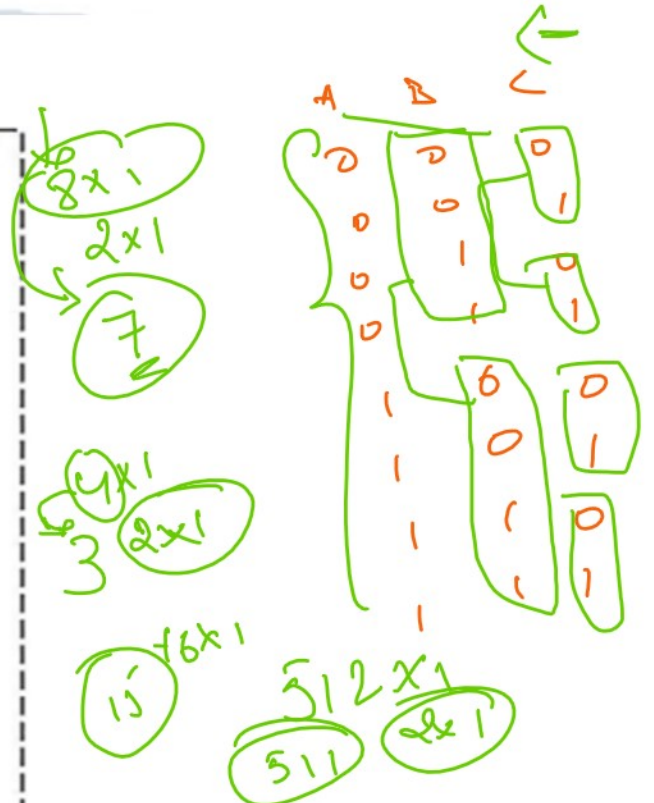
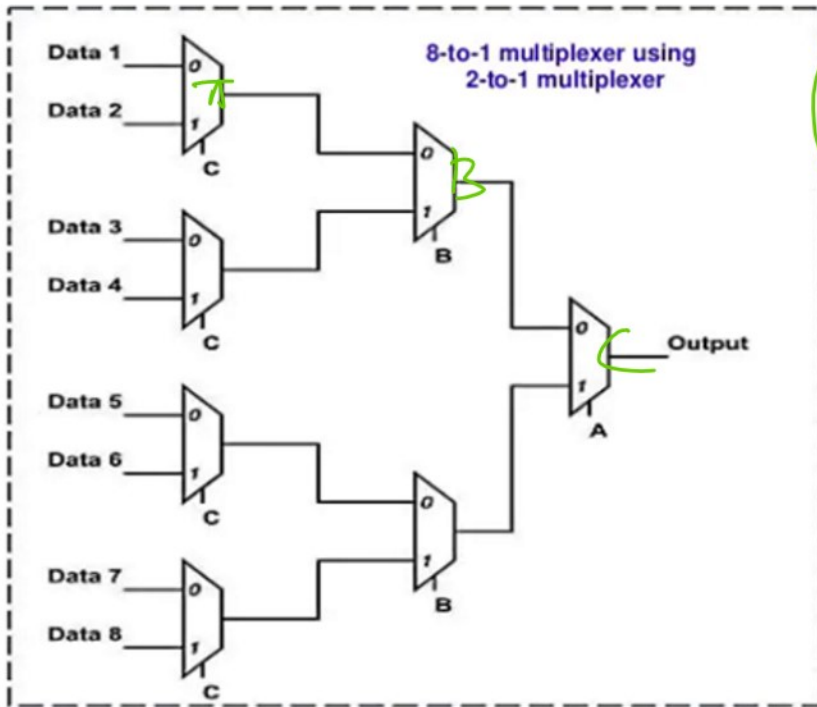
8-to-1 multiplexer using 4-to-1 multiplexer

Select Data Inputs			Output
S_2	S_1	S_0	Y
0	0	0	D_0
0	0	1	D_1
0	1	0	D_2
0	1	1	D_3
1	0	0	D_4
1	0	1	D_5
1	1	0	D_6
1	1	1	D_7

2 sel

8x1 min
 2×1

4x1 min
 2×1



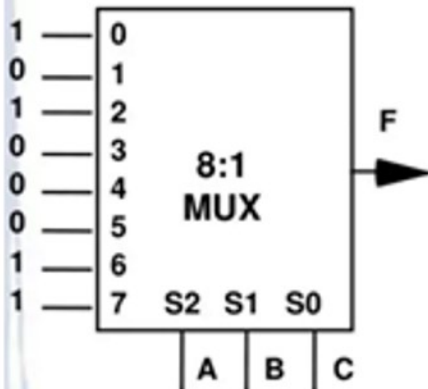
Example:

$$F(A,B,C) = m_0 + m_2 + m_6 + m_7$$

$$= A'B'C' + A'BC' + ABC' + ABC$$

$$= A'B'(C') + A'B(C') + AB'(0) + AB(1)$$

$$AB(\bar{C} + C)$$



"Lookup Table"

A	B	C	F
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	1
1	1	1	1

