Switching Circuit & Logic Design

Lecture 16 : Combinational Circuit - Multiplexer

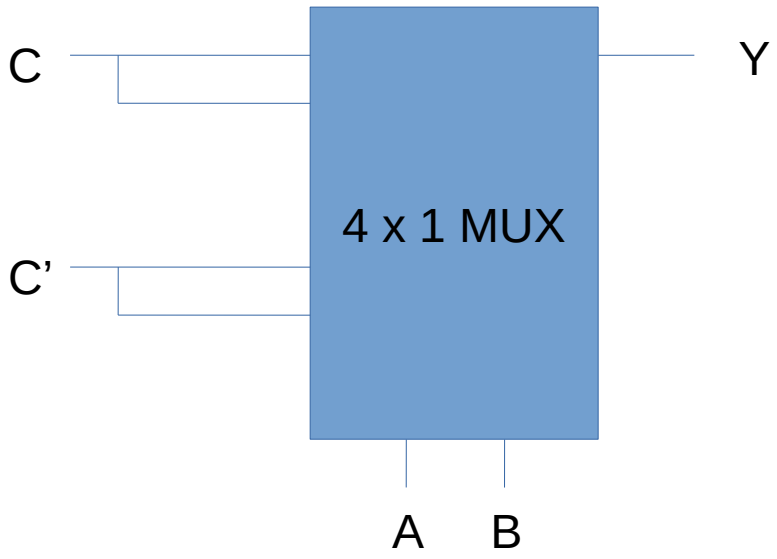
What is Multiplexer ? 2 x 1

What is Multiplexer ? 4 x 1

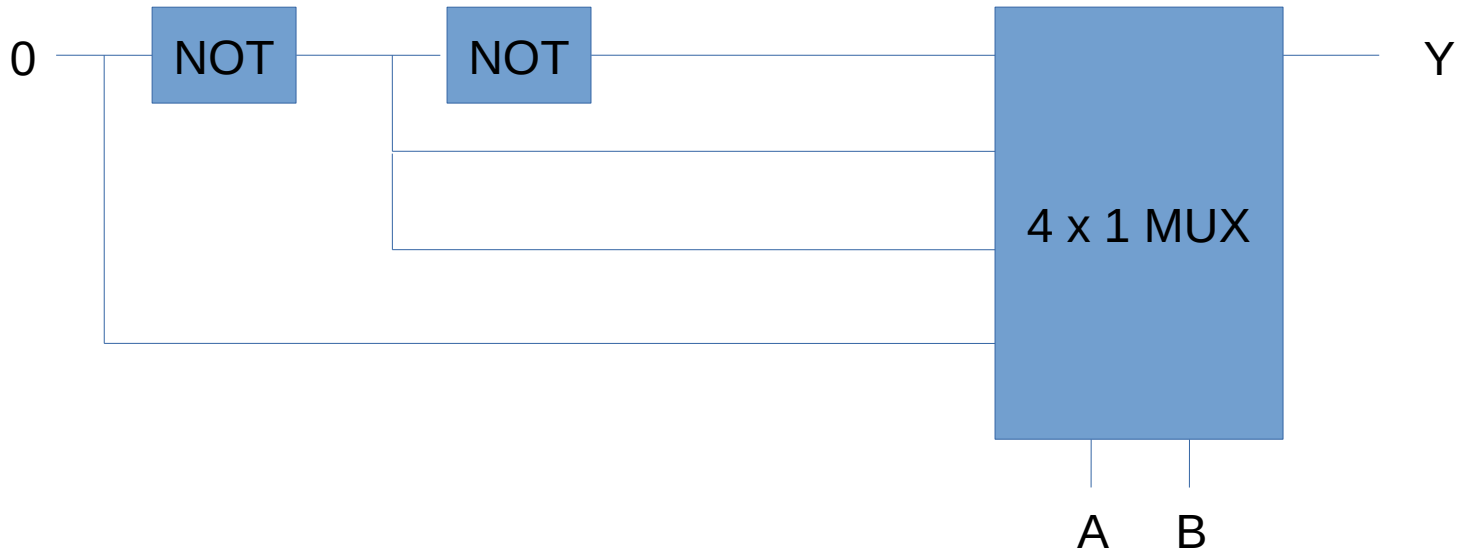
Design F = A XNOR B XOR C

Design F = Sigma (1,2,3,6,7)

What is the function ?



What is the function ?



Implement

- Use a 4 x 1 MUX to implement F(A,B,C) = Σm(1,2,4,7)

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

Implement

- Use a multiplexer to implement the logic function F = A XOR B XOR C