

3. (3) Given only a 2:1 mux, a not gate, and a 2 input or gate implement a circuit that behaves like the following function: $M_2 \times M_4 \times M_6$. There are 3 input variables for this problem x_2, x_1, x_0 .

x_0	x_1	x_2	y
0	0	0	0
1	0	0	1
0	1	0	2
1	1	0	3
0	0	1	4
1	0	1	5
0	1	1	6
1	1	1	7

$x_2 \backslash x_1$	00	01	11	10
x_0				
0	1	0	0	0
1	1	1	1	1

SOP $\bar{x}_2 \bar{x}_1 + x_0$

