

02-10-2020

1	0	1	1	m_5
1	1	0	0	m_6
1	1	1	1	m_7

$$m_1 + m_3 + m_5 + m_7 = Y$$

$$ABC + \bar{A}BC + ABC + \bar{A}\bar{B}C = Y$$

3. Repeat exercise 2 using product-of-sums form

3a.

A	B	Y	
0	0	1	M_0
0	1	0	M_1
1	0	1	M_2
1	1	0	M_3

$$M_1 + M_3$$

$$(A + \bar{B})(\bar{A} + B) = Y$$

3b.

A	B	C	Y	
0	0	0	0	M_0
0	0	1	1	M_1
0	1	0	0	M_2
0	1	1	1	M_3
1	0	0	0	M_4
1	0	1	1	M_5
1	1	0	0	M_6
1	1	1	1	M_7

$$M_0 + M_2 + M_4 + M_6 = Y$$

$$(A + B + C)(A + \bar{B} + C)(\bar{A} + B + C)(\bar{A} + \bar{B} + C) = Y$$

Section 3: Boolean Equations

4. Draw the logic gates for the Boolean equations in exercise 2.

4a. $\bar{A}B + A\bar{B} = Y$

