

Worked Example 02

Simplifying a boolean expression

$$\text{Simplify } \overset{111}{x\bar{y}z} + \underset{110}{x\bar{y}z'} + \underset{010}{x'yz'} + \underset{001}{x'y\bar{z}} = \sum m(1, 2, 6, 7)$$

	z	y	x
m_0	0	0	0
m_1	0	0	1
m_2	0	1	0
m_3	0	1	1
m_4	1	0	0
m_5	1	0	1
m_6	1	1	0
m_7	1	1	1

$x \backslash yz$	$y\bar{z}$	$\bar{y}z$	$y\bar{z}$	$\bar{y}z$
\bar{x}	m_0	1 m_1	m_2	1 m_3
x	m_4	m_5	1 m_6	1 m_7

$$y\bar{z} + x\bar{y} + \bar{x}\bar{y}z$$