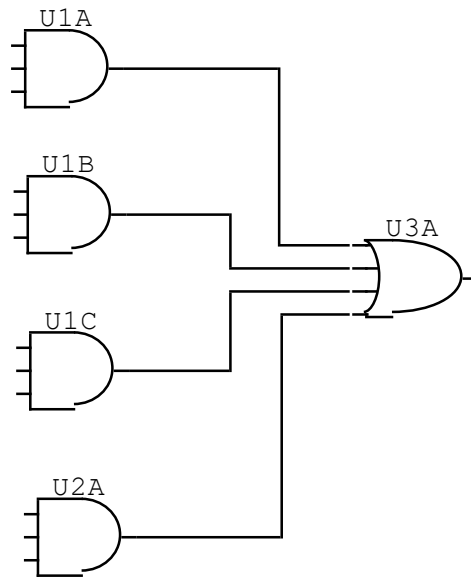


Uma função combinacional pode ser especificada pelas entradas com saída em nível lógico 1 ou 0.

Uma função combinacional pode ser especificada pelas entradas com saída em nível lógico 1 ou 0.

Os MINTERMOS especificam as combinações de entrada onde a função apresenta nível lógico 1.

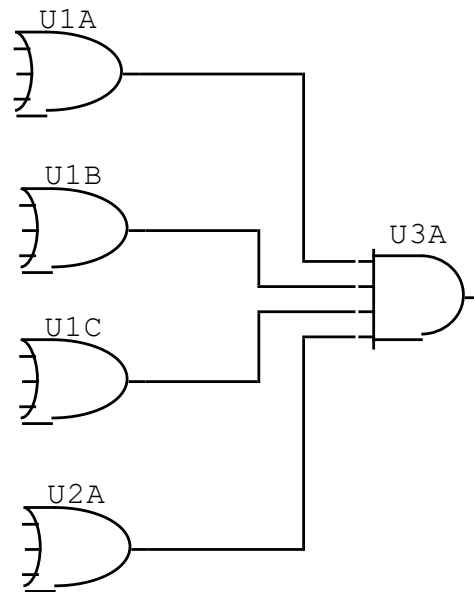
SDP – Soma de Produtos



Uma função combinacional pode ser especificada pelas entradas com saída em nível lógico 1 ou 0.

Os MAXTERMOS especificam as combinações de entrada onde a função apresenta nível lógico 0.

PDS – Produto de Somas



ABC	Mintermo	Maxtermo
000	$m_0 - \bar{A}.\bar{B}.\bar{C}$	$M_0 - (A+B+C)$
001	$m_1 - \bar{A}.\bar{B}.C$	$M_1 - (A+B+\bar{C})$
010	$m_2 - \bar{A}.B.\bar{C}$	$M_2 - (A+\bar{B}+C)$
011	$m_3 - \bar{A}.B.C$	$M_3 - (A+\bar{B}+\bar{C})$
100	$m_4 - A.\bar{B}.\bar{C}$	$M_4 - (\bar{A}+B+C)$
101	$m_5 - A.\bar{B}.C$	$M_5 - (\bar{A}+B+\bar{C})$
110	$m_6 - A.B.\bar{C}$	$M_6 - (\bar{A}+\bar{B}+C)$
111	$m_7 - A.B.C$	$M_7 - (\bar{A}+\bar{B}+\bar{C})$

- Minimizar a função $f(A,B,C) = \prod M(2,6,7)$

		AB			
		00	01	11	10
C	0	0	2	6	4
	1	1	3	7	5

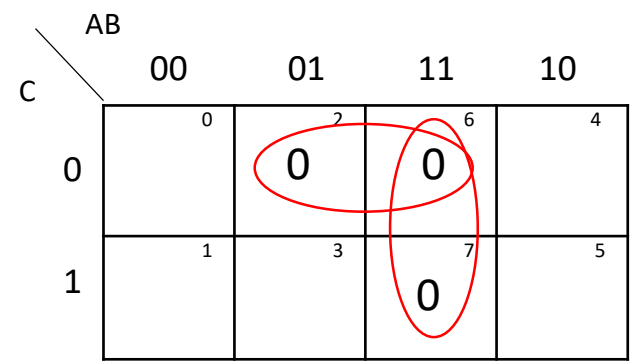
ABC	Mintermo	Maxtermo
000	$m_0 - \bar{A}.\bar{B}.\bar{C}$	$M_0 - (A+B+C)$
001	$m_1 - \bar{A}.\bar{B}.C$	$M_1 - (A+B+\bar{C})$
010	$m_2 - \bar{A}.B.\bar{C}$	$M_2 - (A+\bar{B}+C)$
011	$m_3 - \bar{A}.B.C$	$M_3 - (A+\bar{B}+\bar{C})$
100	$m_4 - A.\bar{B}.\bar{C}$	$M_4 - (\bar{A}+B+C)$
101	$m_5 - A.\bar{B}.C$	$M_5 - (\bar{A}+B+\bar{C})$
110	$m_6 - A.B.\bar{C}$	$M_6 - (\bar{A}+\bar{B}+C)$
111	$m_7 - A.B.C$	$M_7 - (\bar{A}+\bar{B}+\bar{C})$

- Minimizar a função $f(A,B,C) = \prod M(2,6,7)$

		AB			
		00	01	11	10
C	0	⁰	² 0	⁶ 0	⁴
	1	¹	³	⁷ 0	⁵

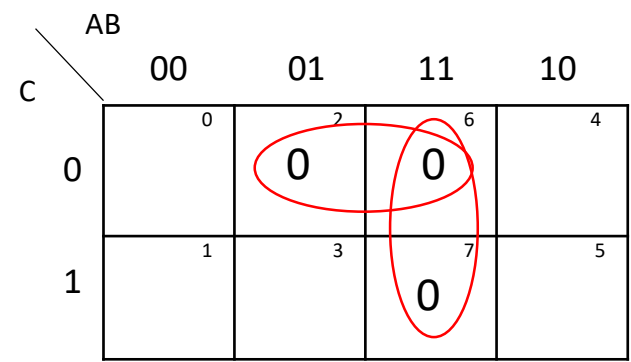
ABC	Mintermo	Maxtermo
000	$m_0 - \bar{A}.\bar{B}.\bar{C}$	$M_0 - (A+B+C)$
001	$m_1 - \bar{A}.\bar{B}.C$	$M_1 - (A+B+\bar{C})$
010	$m_2 - \bar{A}.B.\bar{C}$	$M_2 - (A+\bar{B}+C)$
011	$m_3 - \bar{A}.B.C$	$M_3 - (A+\bar{B}+\bar{C})$
100	$m_4 - A.\bar{B}.\bar{C}$	$M_4 - (\bar{A}+B+C)$
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010	$m_2 - \bar{A}.B.\bar{C}$	$M_2 - (A+\bar{B}+C)$
011	$m_3 - \bar{A}.B.C$	$M_3 - (A+\bar{B}+\bar{C})$
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111	$m_7 - A.B.C$	$M_7 - (\bar{A}+\bar{B}+\bar{C})$

- Minimizar a função $f(A,B,C) = \prod M(2,6,7)$



$$F(A,B,C) = (\bar{A} + \bar{B}).(\bar{B} + C)$$

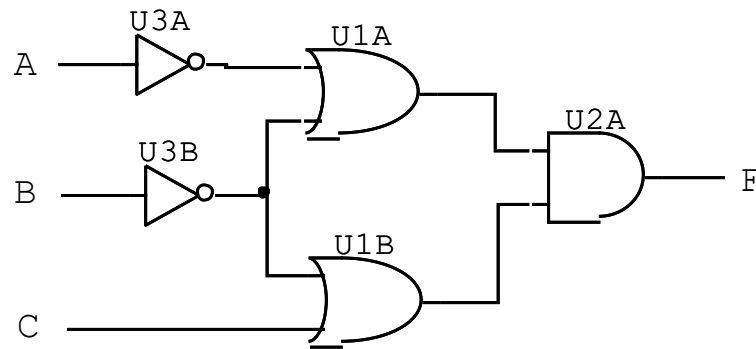
ABC	Mintermo	Maxtermo
000	$m_0 - \bar{A}.\bar{B}.\bar{C}$	$M_0 - (A+B+C)$
001	$m_1 - \bar{A}.\bar{B}.C$	$M_1 - (A+B+\bar{C})$
010	$m_2 - \bar{A}.B.\bar{C}$	$M_2 - (A+\bar{B}+C)$
011	$m_3 - \bar{A}.B.C$	$M_3 - (A+\bar{B}+\bar{C})$
100	$m_4 - A.\bar{B}.\bar{C}$	$M_4 - (\bar{A}+B+C)$
101	$m_5 - A.\bar{B}.C$	$M_5 - (\bar{A}+B+\bar{C})$
110	$m_6 - A.B.\bar{C}$	$M_6 - (\bar{A}+\bar{B}+C)$
111	$m_7 - A.B.C$	$M_7 - (\bar{A}+\bar{B}+\bar{C})$

- Minimizar a função $f(A,B,C) = \prod M(2,6,7)$

		AB			
		00	01	11	10
C	0	0	2	6	4
	1	1	3	7	5

$$F(A,B,C) = (\bar{A} + \bar{B}) \cdot (\bar{B} + C)$$

ABC	Mintermo	Maxtermo
000	$m_0 - \bar{A}.\bar{B}.\bar{C}$	$M_0 - (A+B+C)$
001	$m_1 - \bar{A}.\bar{B}.C$	$M_1 - (A+B+\bar{C})$
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011	$m_3 - \bar{A}.B.C$	$M_3 - (A+\bar{B}+\bar{C})$
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111	$m_7 - A.B.C$	$M_7 - (\bar{A}+\bar{B}+\bar{C})$



- Minimizar a função $f(A,B,C,D) = \prod M(1,3,6,8,9,10,11,13,15)$

- Minimizar a função $f(A,B,C,D) = \prod M(1,3,6,8,9,10,11,13,15)$

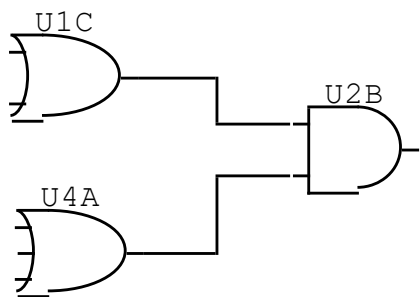
		AB			
		00	01	11	10
CD	00	0 0	4	12	8 0
	01	1 0	5	13 0	9 0
	11	3 0	7	15 0	11 0
	10	2	6 0	14	10 0

- Minimizar a função $f(A,B,C,D) = \prod M(1,3,6,8,9,10,11,13,15)$

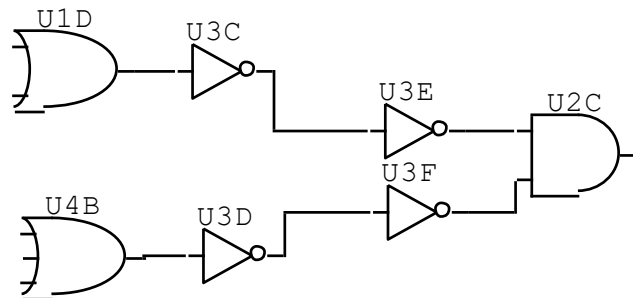
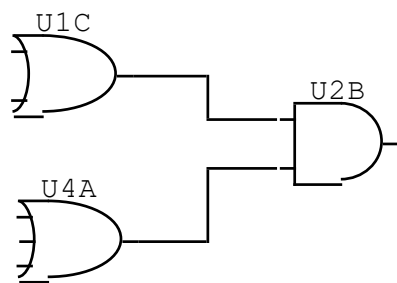
		AB			
		00	01	11	10
CD	00	0	4	12	8
	01	1	5	13	9
	11	3	7	15	11
	10	2	6	14	10

$$f(A,B,C,D) = (A + \bar{B} + \bar{C} + D) \cdot (\bar{A} + B) \cdot (\bar{A} + \bar{D}) \cdot (B + \bar{D})$$

Implementação de circuitos OR-AND com NOR-NOR



Implementação de circuitos OR-AND com NOR-NOR



Implementação de circuitos OR-AND com NOR-NOR

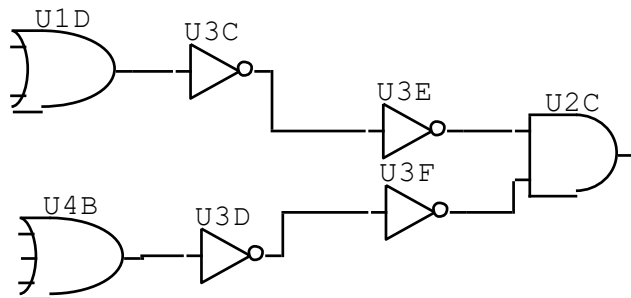
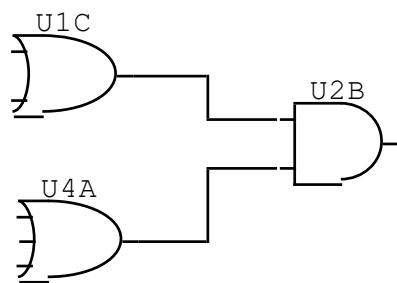


Tabela Verdade NOR

AB	Saída
00	1
01	0
10	0
11	0

Implementação de circuitos OR-AND com NOR-NOR

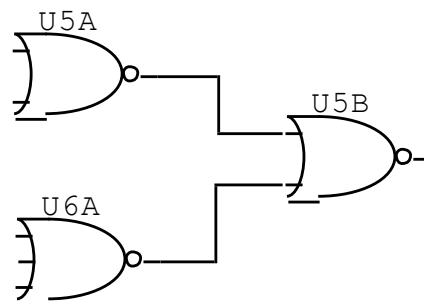
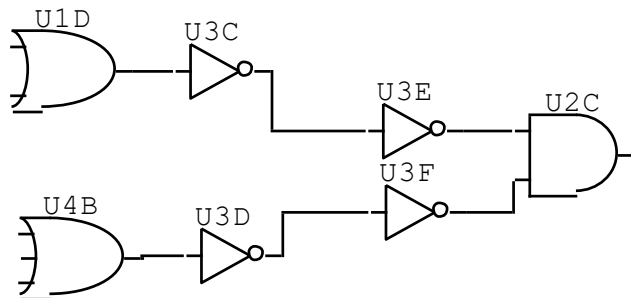
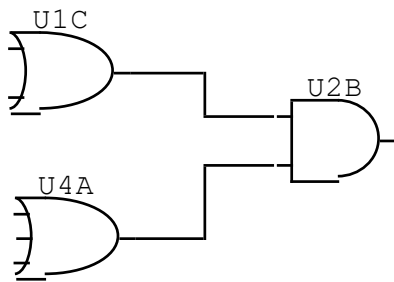


Tabela Verdade NOR

AB	Saída
00	1
01	0
10	0
11	0