

SUM of PRODUCTS

Map

	$\overline{C.D}$	$\overline{C}.D$	$C.D$	$C.\overline{D}$
$\overline{A}.\overline{B}$	1	0	0	1
$\overline{A}.B$	0	0	1	0
$A.\overline{B}$	0	1	0	0
$A.B$	0	1	0	0

Map Layout

	$\overline{C.D}$	$\overline{C}.D$	$C.D$	$C.\overline{D}$
$\overline{A}.\overline{B}$	0	1	3	2
$\overline{A}.B$	4	5	7	6
$A.\overline{B}$	12	13	15	14
$A.B$	8	9	11	10

Groups

(0,2)	$\overline{A}.\overline{B}.\overline{D}$
(9,13)	$A.\overline{C}.D$
(7)	$\overline{A}.B.C.D$

$$y = A'B'D' + AC'D + A'BCD$$

A \overline{A} B \overline{B} C \overline{C} D \overline{D}

A \overline{A} B \overline{B} C \overline{C} D \overline{D}



A \overline{A} B \overline{B} C \overline{C} D \overline{D}

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Truth Table

	A	B	C	D	Y
0	0	0	0	0	1
1	0	0	0	1	0
2	0	0	1	0	1
3	0	0	1	1	0
4	0	1	0	0	0
5	0	1	0	1	0
6	0	1	1	0	0
7	0	1	1	1	1
8	1	0	0	0	0
9	1	0	0	1	1
10	1	0	1	0	0
11	1	0	1	1	0
12	1	1	0	0	0
13	1	1	0	1	1
14	1	1	1	0	0
15	1	1	1	1	0