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SUM of PRODUCTS

Map

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

Map Layout

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

Groups

(8,9,10,11)	$A.\overline{B}$
(8,9,12,13)	$A.\overline{C}$
(5,13)	$B.\overline{C}.D$

y = AB' + AC' + BC'D

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

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

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▶

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	x
1	0	0	0	1	0
2	0	0	1	0	0
3	0	0	1	1	0
4	0	1	0	0	0
5	0	1	0	1	1
6	0	1	1	0	x
7	0	1	1	1	0
8	1	0	0	0	1
9	1	0	0	1	x
10	1	0	1	0	x
11	1	0	1	1	1
12	1	1	0	0	1
13	1	1	0	1	1
14	1	1	1	0	0
15	1	1	1	1	0