

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

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
$A.\overline{B}$	12	13	15	14
$A.B$	8	9	11	10

Groups

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

y = AB'D + AC'D

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

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



**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	0
6	0	1	1	0	0
7	0	1	1	1	0
8	1	0	0	0	0
9	1	0	0	1	x
10	1	0	1	0	0
11	1	0	1	1	1
12	1	1	0	0	x
13	1	1	0	1	1
14	1	1	1	0	0
15	1	1	1	1	0

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