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**SUM of PRODUCTS****Map**

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

**Map Layout**

	$\overline{C.D}$	$\overline{C}.D$	$C.D$	$C.\overline{D}$
$\overline{A.B}$	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)	$A.\overline{C}$
(0,8)	$\overline{B}.\overline{C}.\overline{D}$
(5,7)	$\overline{A}.B.D$

$$y = AB' + AC' + B'C'D' + A'BD$$

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

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

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



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

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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	0
3	0	0	1	1	0
4	0	1	0	0	0
5	0	1	0	1	1
6	0	1	1	0	0
7	0	1	1	1	1
8	1	0	0	0	1
9	1	0	0	1	1
10	1	0	1	0	1
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