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SUM of PRODUCTS

Map

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

Map Layout

	$\overline{D}.\overline{E}$	$\overline{D}.E$	$D.E$	$D.\overline{E}$
$\overline{A}.\overline{B}.\overline{C}$	0	1	3	2
$\overline{A}.\overline{B}.C$	4	5	7	6
$\overline{A}.B.C$	12	13	15	14
$\overline{A}.B.\overline{C}$	8	9	11	10
$A.\overline{B}.\overline{C}$	16	17	19	18
$A.\overline{B}.C$	20	21	23	22
$A.B.C$	28	29	31	30
$A.B.\overline{C}$	24	25	27	26

Groups

(6,14,22,30)	$C.D.\overline{E}$
(13,15,29,31)	$B.C.E$
(3,11)	$\overline{A}.\overline{C}.D.E$
(8,10)	$\overline{A}.B.\overline{C}.\overline{E}$

y = CDE' + BCE + A'C'DE + A'BC'E'
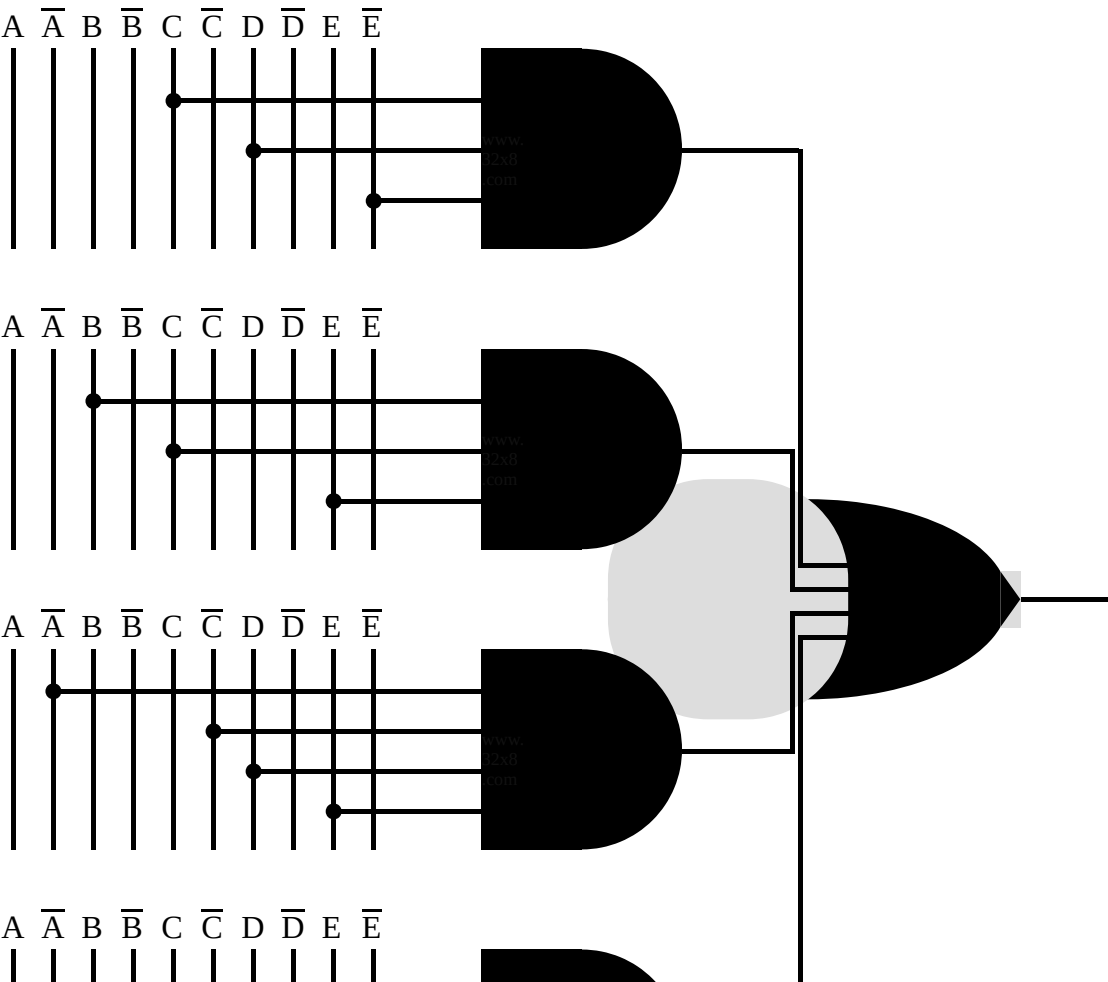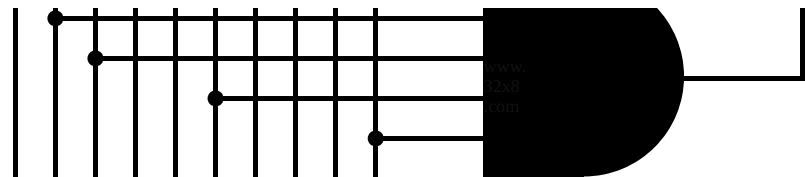
Truth Table

	A	B	C	D	E	Y
0	0	0	0	0	0	0
1	0	0	0	0	1	0
2	0	0	0	1	0	0
3	0	0	0	1	1	1
4	0	0	1	0	0	0
5	0	0	1	0	1	0
6	0	0	1	1	0	1
7	0	0	1	1	1	0
8	0	1	0	0	0	1
9	0	1	0	0	1	0
10	0	1	0	1	0	x
11	0	1	0	1	1	x
12	0	1	1	0	0	0
13	0	1	1	0	1	1
14	0	1	1	1	0	x
15	0	1	1	1	1	x
16	1	0	0	0	0	0
17	1	0	0	0	1	0
18	1	0	0	1	0	0
19	1	0	0	1	1	0

20	1	0	1	0	0	x
21	1	0	1	0	1	x
22	1	0	1	1	0	x
23	1	0	1	1	1	x
24	1	1	0	0	0	0
25	1	1	0	0	1	0
26	1	1	0	1	0	x
27	1	1	0	1	1	x
28	1	1	1	0	0	x
29	1	1	1	0	1	x
30	1	1	1	1	0	x
31	1	1	1	1	1	x

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