

## SUM of PRODUCTS

### Map

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

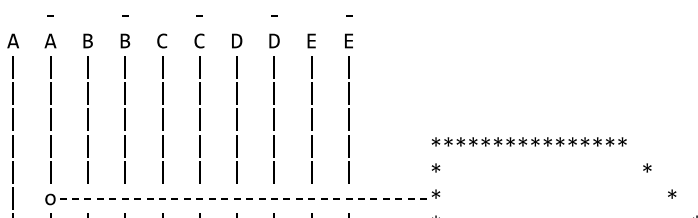
### Map Layout

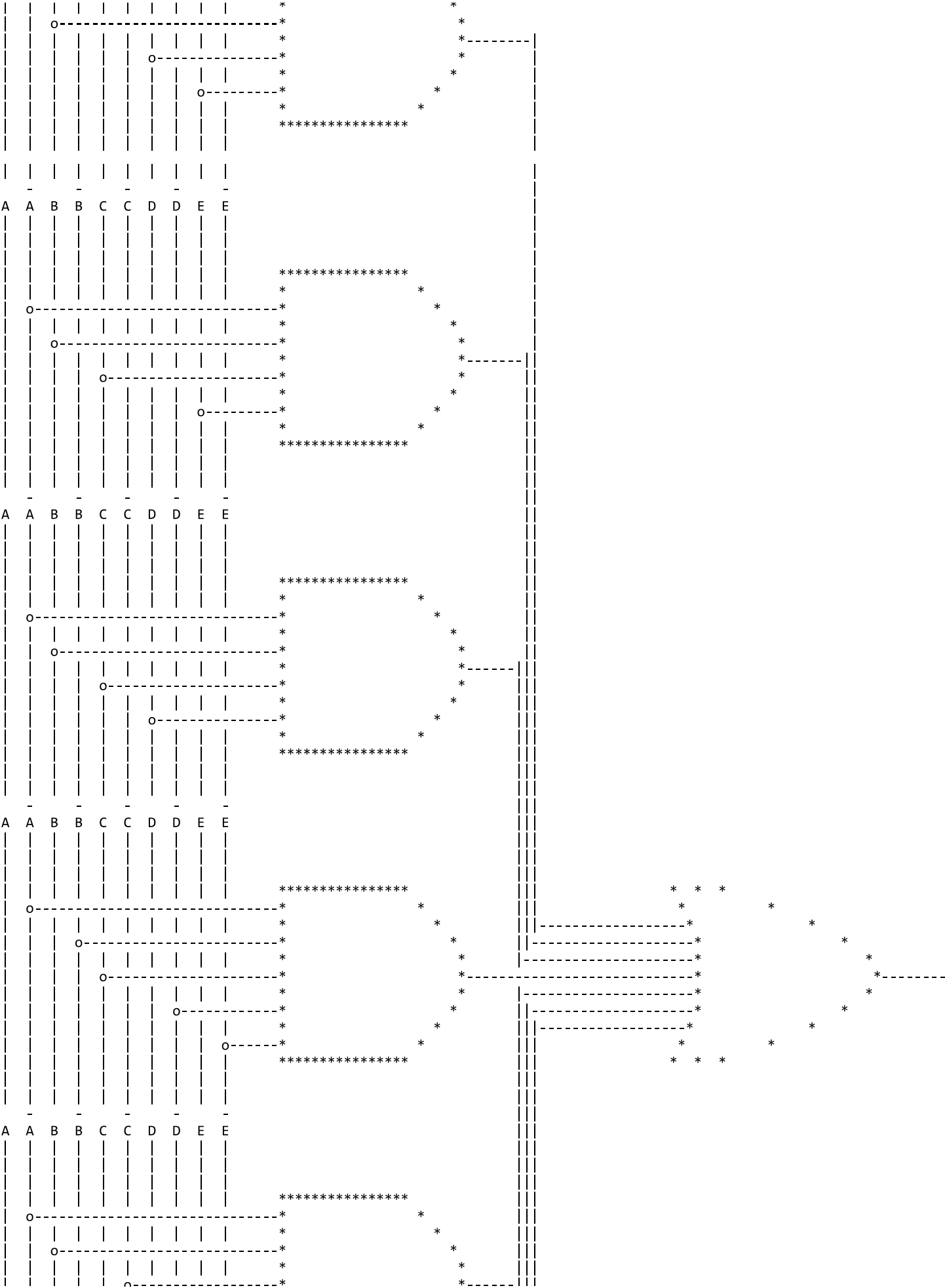
	$\overline{D}.\overline{E}$	$\overline{D}.E$	$D.E$	$D.\overline{E}$
$\overline{A}.\overline{B}.\overline{C}$	0	1	3	2
$\overline{A}.\overline{B}.C$	4	5	7	6
$\overline{A}.B.C$	12	13	15	14
$\overline{A}.B.\overline{C}$	8	9	11	10
$A.\overline{B}.\overline{C}$	16	17	19	18
$A.\overline{B}.C$	20	21	23	22
$A.B.C$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

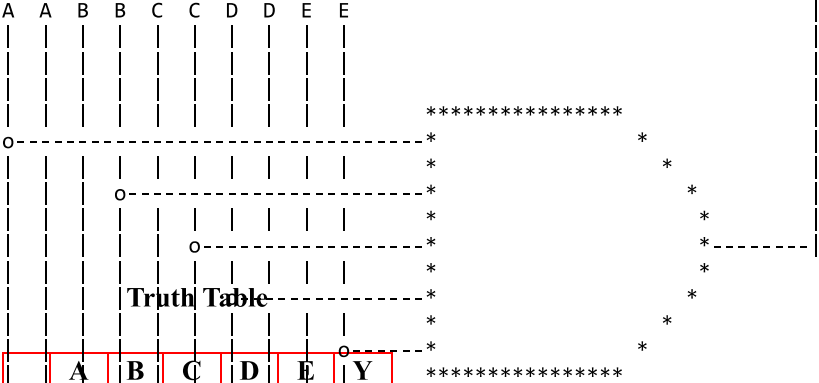
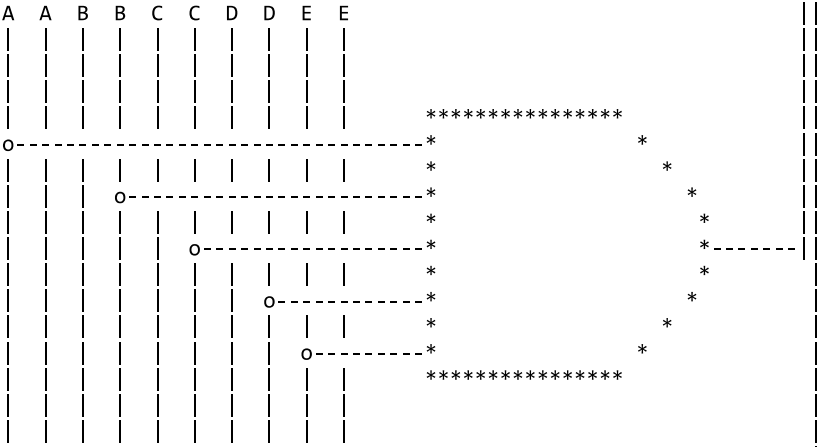
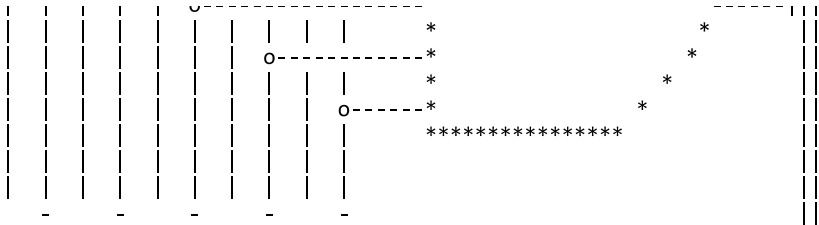
### Groups

(11,15)	$\overline{A}.B.D.E$
(13,15)	$\overline{A}.B.C.E$
(14,15)	$\overline{A}.B.C.D$
(4)	$\overline{A}.\overline{B}.C.\overline{D}.\overline{E}$
(8)	$\overline{A}.B.\overline{C}.\overline{D}.\overline{E}$
(17)	$A.\overline{B}.\overline{C}.\overline{D}.E$
(18)	$A.\overline{B}.\overline{C}.D.\overline{E}$

$$y = \overline{A}.B.D.E + \overline{A}.B.C.E + \overline{A}.B.C.D + \overline{A}.\overline{B}.C.\overline{D}.\overline{E} + \overline{A}.B.\overline{C}.\overline{D}.\overline{E} + A.\overline{B}.\overline{C}.\overline{D}.E + A.\overline{B}.\overline{C}.D.\overline{E}$$







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	0
4	0	0	1	0	0	1
5	0	0	1	0	1	0
6	0	0	1	1	0	0
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	0
11	0	1	0	1	1	1
12	0	1	1	0	0	0
13	0	1	1	0	1	1
14	0	1	1	1	0	1
15	0	1	1	1	1	1
16	1	0	0	0	0	0
17	1	0	0	0	1	1
18	1	0	0	1	0	1
19	1	0	0	1	1	0
20	1	0	1	0	0	0

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

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