

## **SUM of PRODUCTS**

Email

## Map

	$\overline{D}.\overline{E}.\overline{F}$	$\overline{\mathrm{D}}.\overline{\mathrm{E}}.\mathrm{F}$	D.E.F	$\overline{\mathrm{D}}.\mathrm{E}.\overline{\mathrm{F}}$	$D.\overline{E}.\overline{F}$	D.E.F	D.E.F	D.E. <del>F</del>
$\overline{A}.\overline{B}.\overline{C}$	X	X	X	X	X	X	X	X
$\overline{A}.\overline{B}.C$	X	X	X	X	X	X	1	X
$\overline{A}$ .B.C	X	X	X	X	X	X	X	X
$\overline{A}.B.\overline{C}$	X	X	X	X	X	X	X	X
A.B.C	1	1	1	X	1	1	X	X
$A.\overline{B}.C$	0	0	0	X	X	X	X	X
A.B.C	X	X	X	X	X	X	X	X
$A.B.\overline{C}$	X	X	X	X	X	X	X	X

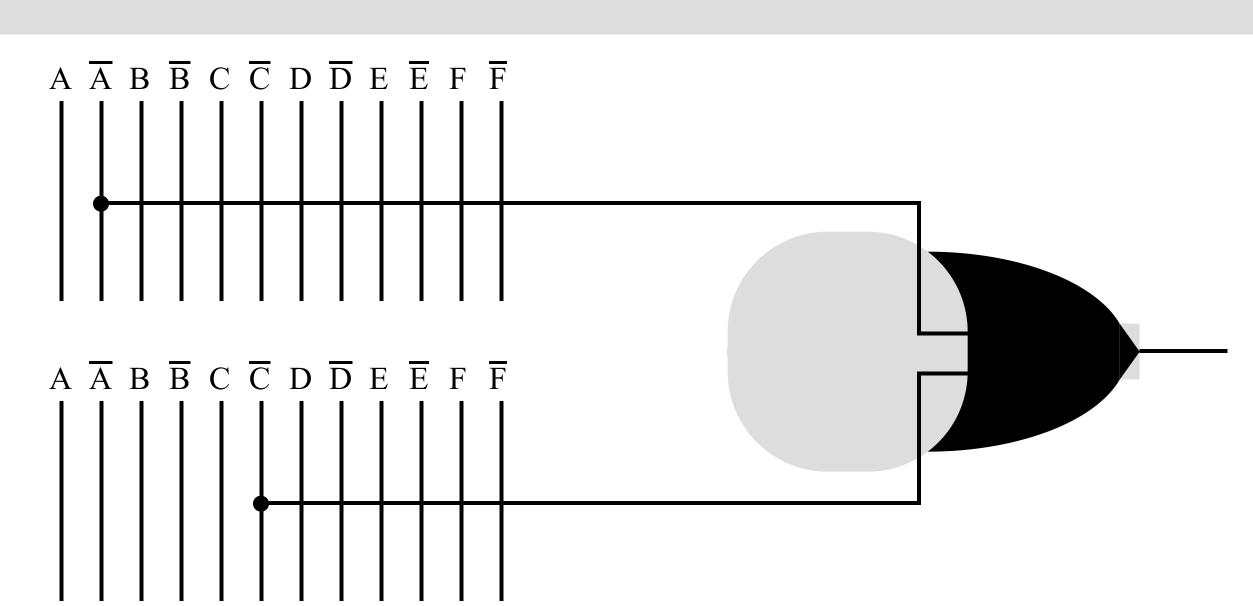
## **Map Layout**

	$\overline{D}.\overline{E}.\overline{F}$	D.E.F						
$\overline{A}.\overline{B}.\overline{C}$	0	1	3	2	4	5	7	6
$\overline{A}.\overline{B}.C$	8	9	11	10	12	13	15	14
$\overline{A}$ .B.C	24	25	27	26	28	29	31	30
$\overline{A}.B.\overline{C}$	16	17	19	18	20	21	23	22
A.B.C	32	33	35	34	36	37	39	38
$A.\overline{B}.C$	40	41	43	42	44	45	47	46
A.B.C	56	57	59	58	60	61	63	62
$A.B.\overline{C}$	48	49	51	50	52	53	55	54

## Groups

(0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31)	Ā
(0.1, 2.3, 4.5, 6.7, 16.17, 18.19, 20.21, 22.23, 32.33, 34.35, 36.37, 38.39, 48.49, 50.51, 52.53, 54.55)	$\overline{C}$

y = A' + C'



Truth Table							
	A	В	C	D	E	F	Y
0	0	0	0	0	0	0	X
1	0	0	0	0	0	1	X
2	0	0	0	0	1	0	X
3	0	0	0	0	1	1	X
4	0	0	0	1	0	0	X
5	0	0	0	1	0	1	X
6	0	0	0	1	1	0	X
7	0	0	0	1	1	1	X
8	0	0	1	0	0	0	X
9	0	0	1	0	0	1	X
10	0	0	1	0	1	0	X
11	0	0	1	0	1	1	X
12	0	0	1	1	0	0	X
13	0	0	1	1	0	1	X
14	0	0	1	1	1	0	X
15	0	0	1	1	1	1	1
16	0	1	0	0	0	0	X
17	0	1	0	0	0	1	X
18	0	1	0	0	1	0	X
19	0	1	0	0	1	1	X
20	0	1	0	1	0	0	X
21	0	1	0	1	0	1	X
22	0	1	0	1	1	0	X
23	0	1	0	1	1	1	X
24	0	1	1	0	0	0	X
25	0	1	1	0	0	1	X
26	0	1	1	0	1	0	X
27	0	1	1	0	1	1	X
28	0	1	1	1	0	0	X
29	0	1	1	1	0	1	X
30	0	1	1	1	1	0	X
32	1	0	0	0	0	0	1 1
33	1	0	0	0	0	1	1
34	1	0	0	0	1	0	X
35	1	0	0	0	1	1	1
36	1	0	0	1	0	0	1
37	1	0	0	1	0	1	1
38	1	0	0	1	1	0	X
39	1	0	0	1	1	1	X
40	1	0	1	0	0	0	0
41	1	0	1	0	0	1	0
42	1	0	1	0	1	0	X
43	1	0	1	0	1	1	0
44	1	0	1	1	0	0	X
45	1	0	1	1	0	1	X
46	1	0	1	1	1	0	X
47	1	0	1	1	1	1	X
48	1	1	0	0	0	0	X
49	1	1	0	0	0	1	X
50	1	1	0	0	1	0	X
51	1	1	0	0	1	1	X
52	1	1	0	1	0	0	X
53	1	1	0	1	0	1	X
54	1	1	0	1	1	0	X
55	1	1	0	1	1	1	X
56	1	1	1	0	0	0	X
57	1	1	1	0	0	1	X
58	1	1	1	0	1	0	X
59	1	1	1	0	1	1	X
60	1	1	1	1	0	0	X
61	1	1	1	1	0	1	X