

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

	$\overline{D}\overline{E}\overline{F}$	$\overline{D}\overline{E}F$	$\overline{D}E\overline{F}$	$\overline{D}EF$	$D\overline{E}\overline{F}$	$D\overline{E}F$	$DE\overline{F}$	$DEF$
$\overline{A}\overline{B}\overline{C}$	0	0	x	x	0	0	0	0
$\overline{A}\overline{B}C$	0	0	1	1	1	1	1	0
$\overline{A}B\overline{C}$	0	0	0	0	0	0	0	0
$\overline{A}BC$	0	0	0	0	0	0	0	0
$A\overline{B}\overline{C}$	x	0	0	0	0	0	0	0
$A\overline{B}C$	0	0	0	0	0	0	0	0
$AB\overline{C}$	0	0	0	0	0	0	0	0
$ABC$	0	0	0	0	0	0	0	0

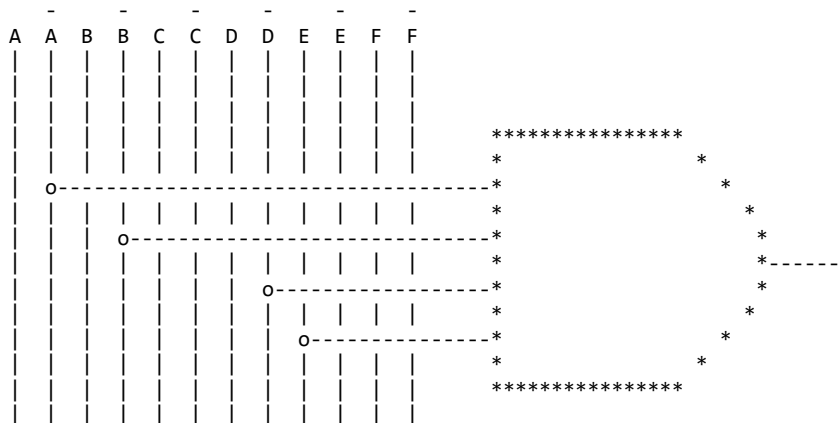
**Map Layout**

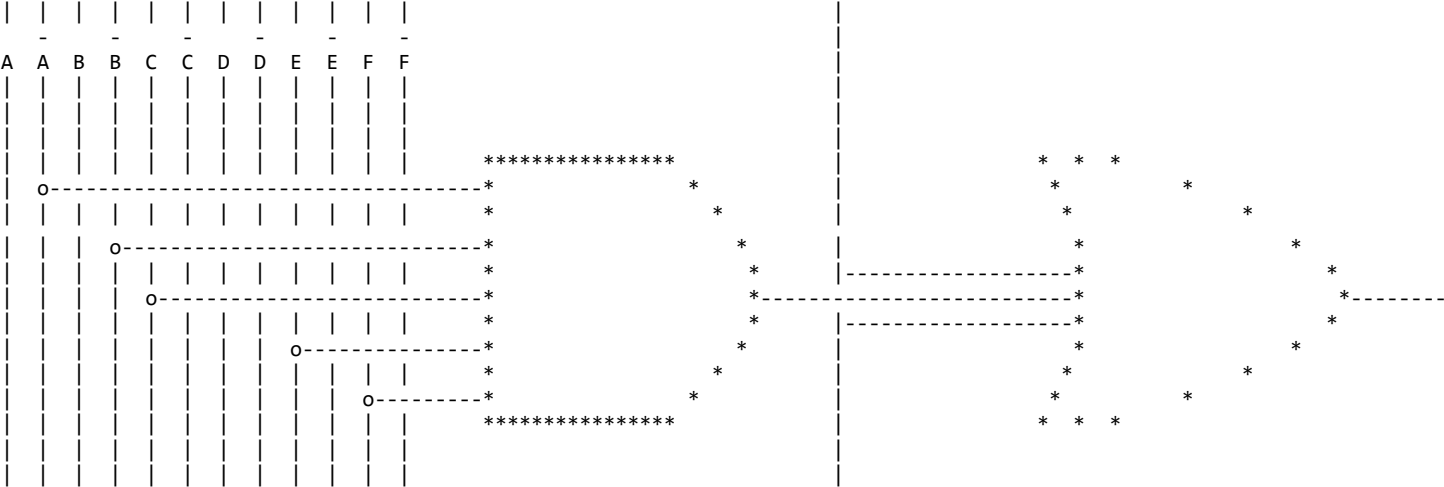
	$\overline{D}\overline{E}\overline{F}$	$\overline{D}\overline{E}F$	$\overline{D}E\overline{F}$	$\overline{D}EF$	$D\overline{E}\overline{F}$	$D\overline{E}F$	$DE\overline{F}$	$DEF$
$\overline{A}\overline{B}\overline{C}$	0	1	3	2	4	5	7	6
$\overline{A}\overline{B}C$	8	9	11	10	12	13	15	14
$\overline{A}B\overline{C}$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

**Groups**

(2,3,10,11)	$\overline{A}\overline{B}\overline{D}E$
(11,15)	$\overline{A}\overline{B}C.E.F$
(12,13)	$\overline{A}\overline{B}C.D.\overline{E}$

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





A	B	C	D	E	F	Y
0	0	0	0	0	0	0
1	0	0	0	0	1	0
2	0	0	0	1	0	x
3	0	0	0	1	1	x
4	0	0	1	0	0	0
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	0
9	0	1	0	0	1	0
10	0	1	0	1	0	1
11	0	1	0	1	1	1
12	0	1	1	0	0	1
13	0	1	1	0	1	1
14	0	1	1	1	0	0
15	0	1	1	1	1	1
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	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

Truth Table

27	0	1	1	0	1	1	0
28	0	1	1	1	0	0	0
29	0	1	1	1	0	1	0
30	0	1	1	1	1	0	0
31	0	1	1	1	1	1	0
32	1	0	0	0	0	0	x
33	1	0	0	0	0	1	0
34	1	0	0	0	1	0	0
35	1	0	0	0	1	1	0
36	1	0	0	1	0	0	0
37	1	0	0	1	0	1	0
38	1	0	0	1	1	0	0
39	1	0	0	1	1	1	0
40	1	0	1	0	0	0	0
41	1	0	1	0	0	1	0
42	1	0	1	0	1	0	0
43	1	0	1	0	1	1	0
44	1	0	1	1	0	0	0
45	1	0	1	1	0	1	0
46	1	0	1	1	1	0	0
47	1	0	1	1	1	1	0
48	1	1	0	0	0	0	0
49	1	1	0	0	0	1	0
50	1	1	0	0	1	0	0
51	1	1	0	0	1	1	0
52	1	1	0	1	0	0	0
53	1	1	0	1	0	1	0
54	1	1	0	1	1	0	0
55	1	1	0	1	1	1	0
56	1	1	1	0	0	0	0
57	1	1	1	0	0	1	0
58	1	1	1	0	1	0	0
59	1	1	1	0	1	1	0
60	1	1	1	1	0	0	0
61	1	1	1	1	0	1	0
62	1	1	1	1	1	0	0
63	1	1	1	1	1	1	0