www.32x8.com

# **SUM of PRODUCTS**

#### Map

Ad	ldresses								
		$\overline{\mathrm{D}}.\overline{\mathrm{E}}.\overline{\mathrm{F}}$	$\overline{\mathrm{D}}.\overline{\mathrm{E}}.\mathrm{F}$	$\overline{\mathrm{D}}.\mathrm{E.F}$	$\overline{\mathrm{D}}.\mathrm{E}.\overline{\mathrm{F}}$	$D.\overline{E}.\overline{F}$	$D.\overline{E}.F$	D.E.F	$D.E.\overline{F}$
	$\overline{A}.\overline{B}.\overline{C}$	0	0	0	0	0	0	0	0
	$\overline{A}.\overline{B}.C$	0	0	1	0	0	1	0	0
	$\overline{A}$ .B.C	0	0	0	0	0	1	0	0
	$\overline{A}.B.\overline{C}$	0	0	0	1	0	0	0	0
	$A.\overline{B}.\overline{C}$	0	0	0	0	0	0	0	0
	$A.\overline{B}.C$	X	X	X	X	X	X	X	X
	A.B.C	X	X	X	X	X	X	X	X
	$\text{A.B.}\overline{\text{C}}$	X	X	X	X	X	X	X	X

### **Map Layout**

	$\overline{\mathrm{D}}.\overline{\mathrm{E}}.\overline{\mathrm{F}}$	$\overline{\mathrm{D}}.\overline{\mathrm{E}}.\mathrm{F}$	D.E.F	$\overline{\mathrm{D}}.\mathrm{E}.\overline{\mathrm{F}}$	$D.\overline{E}.\overline{F}$	$D.\overline{E}.F$	D.E.F	$D.E.\overline{F}$
$\overline{A}.\overline{B}.\overline{C}$	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
$A.\overline{B}.\overline{C}$	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

(13,29,45,61)	C.D.E.F
(11,43)	$\overline{\mathrm{B}}.\mathrm{C}.\overline{\mathrm{D}}.\mathrm{E}.\mathrm{F}$
(18,50)	$B.\overline{C}.\overline{D}.E.\overline{F}$

y = CDE'F + B'CD'EF + BC'D'EF'

3/23/2018, 11:45 PM 1 of 4

## $A \ \overline{A} \ B \ \overline{B} \ C \ \overline{C} \ D \ \overline{D} \ E \ \overline{E} \ F \ \overline{F}$

www. 32x8 .com

 $\underline{Addres Aes} B \ \overline{B} \ C \ \overline{C} \ D \ \overline{D} \ E \ \overline{E} \ F \ \overline{F}$ 

www. 32x8 .com

 $A \ \overline{A} \ B \ \overline{B} \ C \ \overline{C} \ D \ \overline{D} \ E \ \overline{E} \ F \ \overline{F}$ 

www. 32x8 .com

#### **Truth Table**

	A	В	C	D	E	F	Y
0	0	0	0	0	0	0	0
1	0	0	0	0	0	1	0
2	0	0	0	0	1	0	0
3	0	0	0	0	1	1	0
4	0	0	0	1	0	0	0
5	0	0	0	1	0	1	0
6	0	0	0	1	1	0	0
7	0	0	0	1	1	1	0
8	0	0	1	0	0	0	0
9	0	0	1	0	0	1	0
10	0	0	1	0	1	0	0
11	0	0	1	0	1	1	1
12	0	0	1	1	0	0	0
13	0	0	1	1	0	1	1

2 of 4 3/23/2018, 11:45 PM

		0	0	1	1	1	0	0
	15	0	0	1	1	1	1	0
	16	0	1	0	0	0	0	0
	17	0	1	0	0	0	1	0
	18	0	1	0	0	1	0	1
	19	0	1	0	0	1	1	0
Ad	20 dress	0	1	0	1	0	0	0
	21	0	1	0	1	0	1	0
	22	0	1	0	1	1	0	0
	23	0	1	0	1	1	1	0
	24	0	1	1	0	0	0	0
	25	0	1	1	0	0	1	0
	26	0	1	1	0	1	0	0
	27	0	1	1	0	1	1	0
	28	0	1	1	1	0	0	0
	29	0	1	1	1	0	1	1
	30	0	1	1	1	1	0	0
	31	0	1	1	1	1	1	0
	32	1	0	0	0	0	0	0
	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	X
	41	1	0	1	0	0	1	X
	42	1	0	1	0	1	0	X
	43	1	0	1	0	1	1	X
	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

3 of 4 3/23/2018, 11:45 PM

	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
Ad	56 dress	1 es	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
	62	1	1	1	1	1	0	X
	63	1	1	1	1	1	1	X

© 2014-2018

4 of 4 3/23/2018, 11:45 PM