

SUM of PRODUCTS

Map

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

Map Layout

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

Groups

(0,8,16,24,32,40,48,56)	$\overline{D.E.F}$
(8,10,12,14,40,42,44,46)	$\overline{B.C.F}$
(16,17,20,21,48,49,52,53)	$B.C.E$
(17,19,25,27,49,51,57,59)	$B.D.F$
(22,23,30,31,54,55,62,63)	$B.D.E$
(32,36,40,44,48,52,56,60)	$A.E.F$

(2,6,10,14)	$\overline{A}.\overline{B}.E.\overline{F}$
(35,43,51,59)	$A.\overline{D}.E.F$

$y = D'E'F' + B'CF' + BC'E' + BD'F + BDE + AE'F' + A'B'EF' + AD'EF$

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

Addresses

www.  
32x8  
.com

A  $\overline{A}$  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

A  $\overline{A}$  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

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

Addresses

**Truth Table**

	A	B	C	D	E	F	Y
0	0	0	0	0	0	0	1
1	0	0	0	0	0	1	0
2	0	0	0	0	1	0	1
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	1
7	0	0	0	1	1	1	0
8	0	0	1	0	0	0	1
9	0	0	1	0	0	1	0
10	0	0	1	0	1	0	1
11	0	0	1	0	1	1	0
12	0	0	1	1	0	0	1
13	0	0	1	1	0	1	0
14	0	0	1	1	1	0	1
15	0	0	1	1	1	1	0
16	0	1	0	0	0	0	1

Addresses	17	0	1	0	0	0	1	1
	18	0	1	0	0	1	0	0
	19	0	1	0	0	1	1	1
	20	0	1	0	1	0	0	1
	21	0	1	0	1	0	1	1
	22	0	1	0	1	1	0	1
	23	0	1	0	1	1	1	1
	24	0	1	1	0	0	0	1
	25	0	1	1	0	0	1	1
	26	0	1	1	0	1	0	0
	27	0	1	1	0	1	1	1
	28	0	1	1	1	0	0	0
	29	0	1	1	1	0	1	0
	30	0	1	1	1	1	0	1
	31	0	1	1	1	1	1	1
	32	1	0	0	0	0	0	1
	33	1	0	0	0	0	1	0
	34	1	0	0	0	1	0	0
	35	1	0	0	0	1	1	1
	36	1	0	0	1	0	0	1
	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
	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
62	1	1	1	1	1	0	x
63	1	1	1	1	1	1	x

Addresses

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