

621.391.833

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...
: , , , , .

N N-m , m () N-1 N-1
 , N-m . “ ” “ ”
 ”.
 N-1
 [1]
 ()
 N-1 N-2
 N*N. 2 N-2 N-
 N
 XOR, OR (AND) N-1 N-2
 () . .1
 , , N=9, m=4 N=6, m=2

$$C = \begin{bmatrix} 1 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 \\ 1 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 1 \\ 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 1 \\ 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 \end{bmatrix} \quad ICC = \begin{bmatrix} 2 & 4 & 6 & 8 & 8 & 8 & 6 & 4 & 2 \\ & 2 & 4 & 6 & 8 & 8 & 6 & 4 & \\ & & 2 & 4 & 6 & 8 & 8 & 6 & \\ & & & 2 & 4 & 6 & 8 & 8 & \\ & & & & 2 & 4 & 6 & 8 & \\ & & & & & 2 & 4 & 6 & \\ & & & & & & 2 & 4 & \\ & & & & & & & 2 & \\ & & & & & & & & 2 \end{bmatrix} \quad C = \begin{bmatrix} 0 & 0 & 0 & 1 & 0 & 1 \\ 1 & 0 & 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & 0 & 0 & 1 \\ 1 & 0 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 1 & 0 \end{bmatrix} \quad ICC = \begin{bmatrix} 4 & 2 & 4 & 2 & 4 \\ & 4 & 2 & 4 & 2 \\ & & 4 & 2 & 4 \\ & & & 4 & 2 \\ & & & & 4 \end{bmatrix}$$

.1. N=9, m=4 N=6, m=2

[2 - 4].

I.

- 1- 4- : $AVg+cVN+dVA+eVB+MVe+NVf=6$
- 1- 5- : $AVf+BVg+cVM+dVN+eVA+fVB+MVd+NVe=8$
- 1- 6- : $Ave+BVf+dVM+eVN+fVA+gVB+MVc+NVd=8.$

1.	A	b	C	d	e	f	g	M	N
2.	N	A	b	C	d	e	f	g	M
3.	M	N	A	b	C	d	e	f	g
4.	g	M	N	A	b	C	d	e	f
5.	f	g	M	N	A	b	C	d	e
6.	e	f	g	M	N	A	b	C	d
7.	d	e	f	g	M	N	A	b	C
8.	C	d	e	f	g	M	N	A	b
9.	b	C	d	e	f	g	M	N	A

.3. $c N=9, m=4 \quad D=[101000011]$

.3:

- 1- 2- : $bVA+CVb+dVC+MVg=4$
- 1- 3- : $bVN+eVC+MVf+NVg=4$
- 1- 4- : $AVg+bVM+dVA+fVC+MVe+NVf=6$
- 1- 5- : $AVf+dVN+eVA+gVC+MVd+NVe=6$
- 1- 6- : $Ave+CVg+dVM+eVN+fVA+NVd=6.$

() N

.2 3,

1.	A	B	c	d	e	f	g	M	N
2.	N	A	B	c	d	e	f	g	M
3.	M	N	A	B	c	d	e	f	g
4.	g	M	N	A	B	c	d	e	f
5.	f	g	M	N	A	B	c	d	e
6.	e	f	g	M	N	A	B	c	d
7.	d	e	f	g	M	N	A	B	c
8.	c	d	e	f	g	M	N	A	B
9.	B	c	d	e	f	g	M	N	A

.2. $c N=9, m=4 \quad D=[110000011]$

N=9,

m=4

D ().

, : $= [2 \ 4 \ 6 \ 8 \ 8 \ 6 \ 4 \ 2] = [4 \ 4 \ 6 \ 6 \ 6 \ 6 \ 4 \ 4]$.

. 2 - 4 ,

$N=11, m=4, D=[1110000000011]$
 $C=[110000000011]$
 $PC=[2 \ 4 \ 6 \ 8 \ 8 \ 8 \ 8 \ 6 \ 4 \ 2]=56$
 $C=[110100000011]$
 $PC=[4 \ 4 \ 6 \ 8 \ 8 \ 8 \ 8 \ 6 \ 4 \ 4]=60$
 $C=[110100000111]$
 $PC=[2 \ 4 \ 6 \ 8 \ 10 \ 10 \ 8 \ 6 \ 4 \ 2]=60$
 $C=[110000000001]$
 $PC=[2 \ 4 \ 6 \ 6 \ 6 \ 6 \ 6 \ 6 \ 4 \ 2]=48$
 $C=[010000000011]$
 $PC=[4 \ 4 \ 4 \ 6 \ 6 \ 6 \ 6 \ 4 \ 4 \ 4]=48$

.4.

2.

N

$N= N+k,$

$k=var.$

3.

.2:

- 1- 2- : $cVB+MVG=2$
- 1- 3- : $cVA+dVB+MVf+NVg=4$

m=4,

N=9,

1.	B	c	d	e	f	g	M	N	A
2.	A	B	c	d	e	f	g	M	N
3.	N	A	B	c	d	e	f	g	M
4.	M	N	A	B	c	d	e	f	g
5.	g	M	N	A	B	c	d	e	f
6.	f	g	M	N	A	B	c	d	e
7.	e	f	g	M	N	A	B	c	d
8.	d	e	f	g	M	N	A	B	c
9.	c	d	e	f	g	M	N	A	B

- 1- 2- : cVB+MVg=2
- 1- 3- : cVA+dVB+MVf+NVg=4
- 1- 4- :
AVg+cVN+dVA+eVB+MVe+NVf=6
- 1- 5- :
AVf+BVg+cVM+dVN+eVA+fVB+MVd+NVe=8
- 1- 6- :
BVe+eVM+fVN+gVA+NVc+AVd=6
- 1- 2- : BVc+gVM=2
- 1- 3- : BVd+AVc+gVN+fVM=4
- 1- 4- :
BVe+AVd+NVc+gVA+fVN+eVM=6
- 1- 5- :
BVf+AVe+NVd+NVc+fVA+eVN+dVM=8
- 1- 6- :
AVg+NVf+MVe+eVB+dVA+cVN=6

2

1.	b	C	D	E	F	G	m	n	a
2.	a	b	C	D	F	F	G	m	n
3.	n	a	b	C	D	E	F	G	m
4.	m	n	a	b	C	D	E	F	G
5.	G	m	n	a	b	C	D	E	F
6.	F	G	m	n	a	b	C	D	E
7.	E	F	G	m	n	a	b	C	D
8.	D	E	F	G	m	n	a	b	C
9.	C	D	E	F	G	m	n	a	b

- 1- 2- : CVb+mVG=2
- 1- 3- : CVa+DVb+mVF+nVG=4
- 1- 4- :
AVg+cVN+dVA+eVB+MVe+NVf=6
- 1- 5- :
AVf+BVg+cVM+dVN+eVA+fVB+MVd+NVe=8
- 1- 6- :
AVe+BVf+dVM+eVN+fVA+gVB+MVc+NVd=8

- 1- 2- : bVC+GVm=2
- 1- 3- : bVD+aVC+GVn+FVm=4
- 1- 4- :
bVe+aVD+nVC+GVa+FVn+EVm=6
- 1- 5- :
bVF+aVE+nVD+mVC+GVb+FVa+EVn+DVm=8
- 1- 2- :
bVG+aVF+nVE+mVD+FVb+EVa+DVn+cVn=8

N>1

$(2^N/2)-2$

$0 < m < N-1$

$2^N/2-2$

$m=N$

$(2^N/N)-2$

$0 < m < N-1$

N

N $m=1$ $m=N-$

$m=1$

2^N

1, m=2 m=N-2,...,m=N-1

$[2^N / N - 2]: 2$

