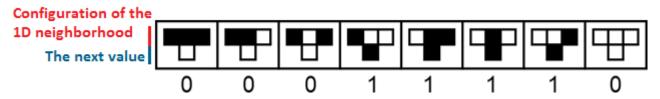
#### From a text file:



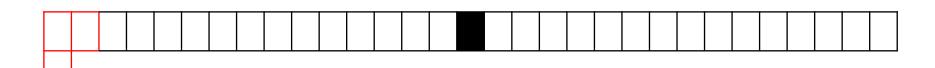
#### From standard input:

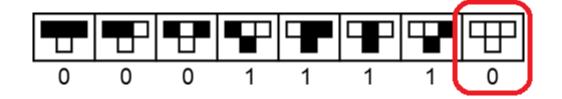
Rule number -> given as 30



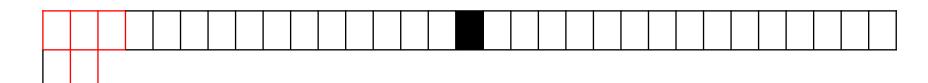
Number of generations -> given as 2

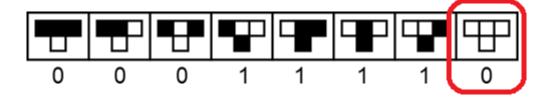




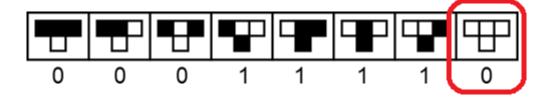


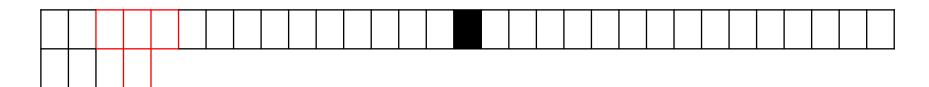
Nonexistent neighbors on the border are treated as 0.

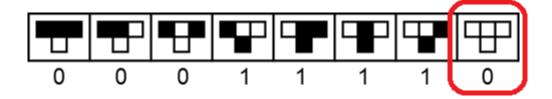


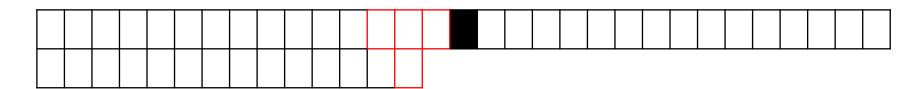


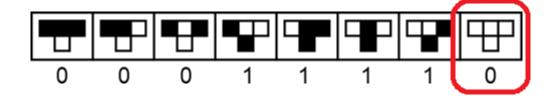


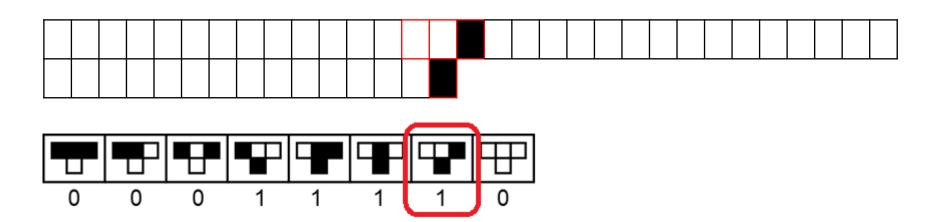


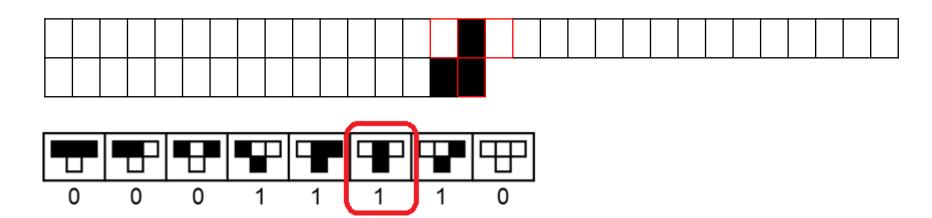


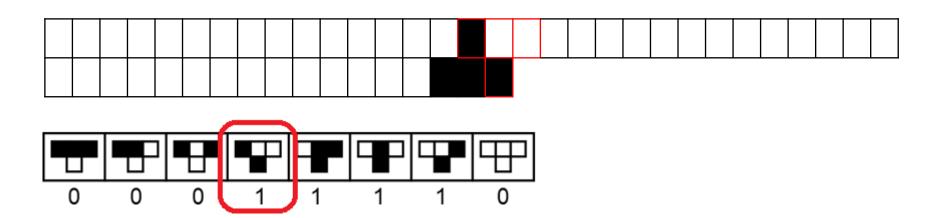


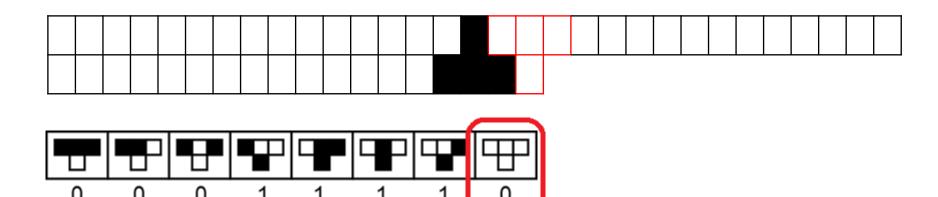


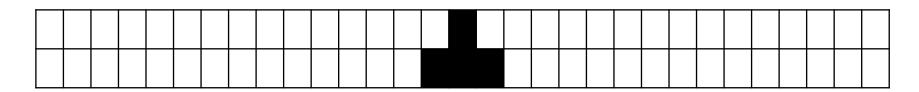


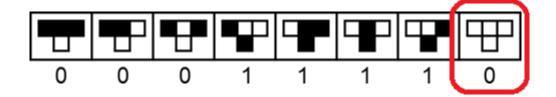




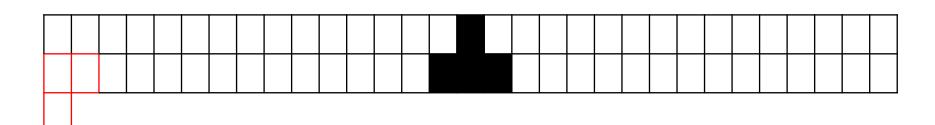


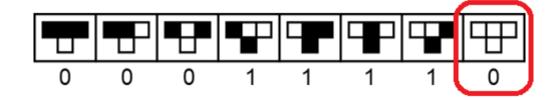




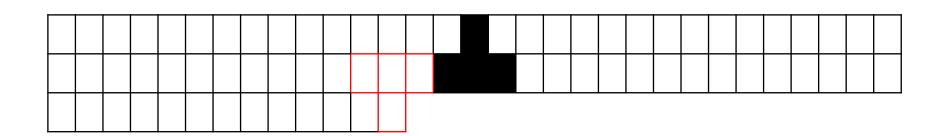


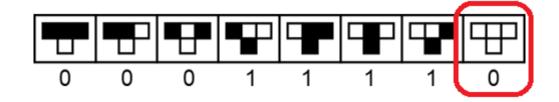
The first sequence is generated.



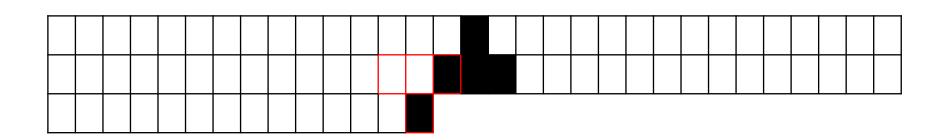


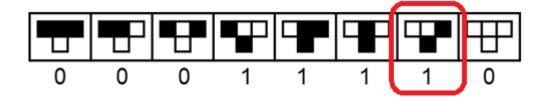
Nonexistent neighbors on the border are treated as 0.

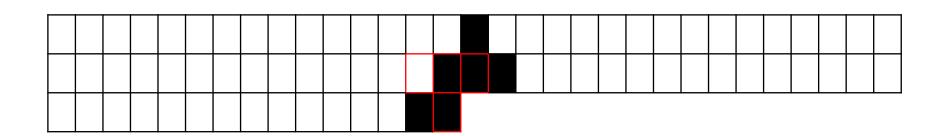


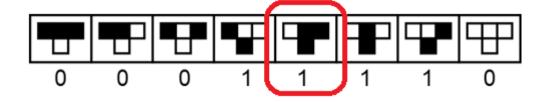


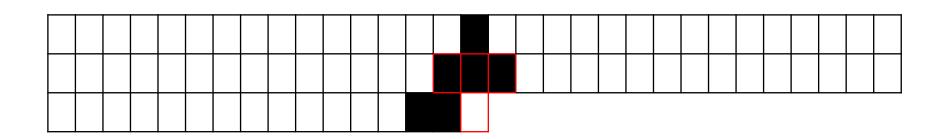
Nonexistent neighbors on the border are treated as 0.

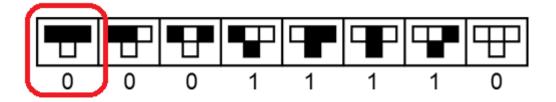


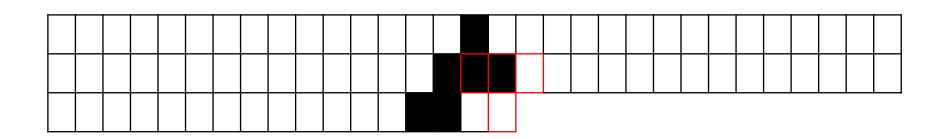


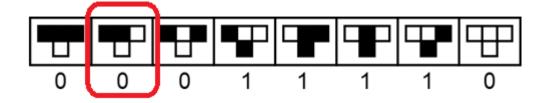


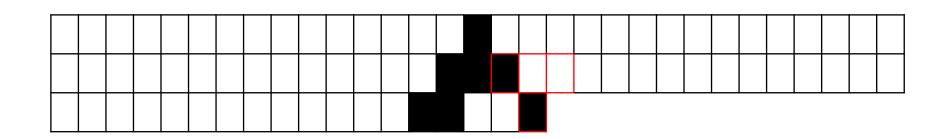


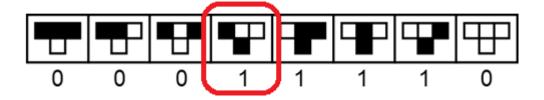


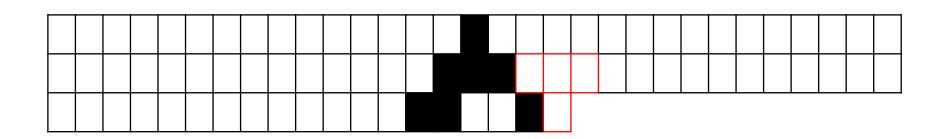


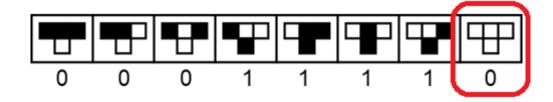


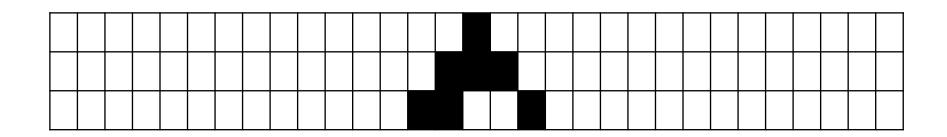


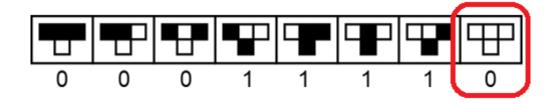








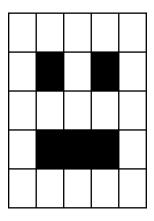




The second sequence is generated.

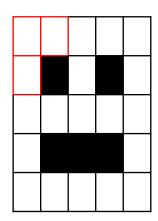
#### From text files

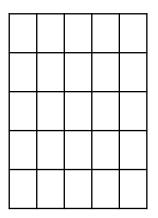
A binary matrix:



#### 32 digit rule sequence:

	N	
W	С	Ε
	S	

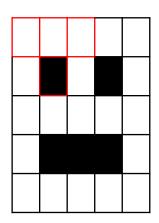


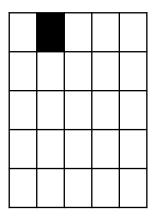


Nonexistent neighbors on the border are treated as 0.

	N	
W	С	Ε
	S	

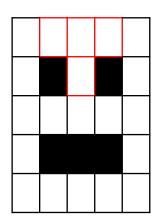
	Ä
0	00
1	00
1	18
0	00
1	01
0	01
0	01
1	01
1	10
0	10
0	10
1	10
0	11
1	11
1	11
0	11
1	00
0	00
0	00
1	00
0	01
1	10101
1	01
0	01
0	10
1	10
1	10
0	10
1	11
0	11
0	11
1	11

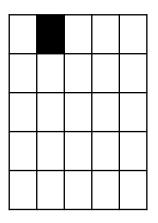




	7	
W	С	Ε
	S	

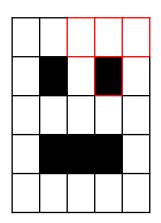
	VES
0	000
1	000
1	001
0	001
1	010
0	010
0	011
1	00111
1	100
0	100
0	101
1	101
0	110
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111

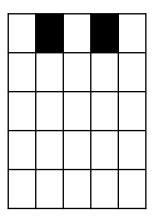




	Z	
W	С	Ε
	S	

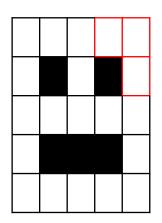
	ES
0	00
1	00
1	01
0	01
1	10
0	10
0	11
1	11
1	00
0	00
0	01
1	01
0	01100
1	10
1	11
0	11
1	8
0	00
0	01
1	01
0	10
1	10
1	11
0	11
0	00
1	00
1	01
0	01
1	10
0	10
0	11
1	11

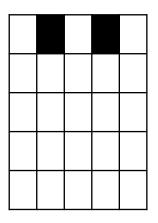




	7	
W	С	Ε
	S	

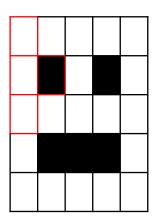
	انبا
0	8
1	000
1	001
0	001
1	00100
0	010
0	011
1	011
1	100
0	100
0	101
1	101
0	110
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111

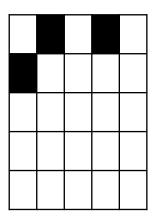




	7	
W	С	Ε
	S	

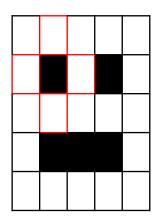
	ES
0	00
1	00
1	01
0	01
1	10
0	10
0	11
1	11
1	00
0	00
0	01
1	01
0	01100
1	10
1	11
0	11
1	8
0	00
0	01
1	01
0	10
1	10
1	11
0	11
0	00
1	00
1	01
0	01
1	10
0	10
0	11
1	11

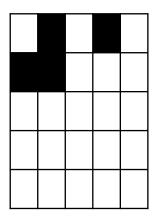




	Z	
W	С	Ε
	S	

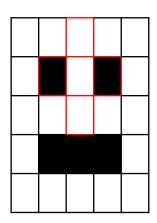
0 1 1 0 1 0 0 1 1 0 0 1 1	10101010111110101010101111111111111111
1 0 1 0 0 1 0 1 1 0 0 1 1 0 0 1	10000 10000 10000 10001 10001 10100 11000 11000 11100 11100 11100 11110 11110

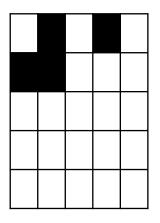




	2	
W	C	Ε
	S	

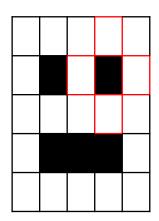
	VES
0	000
1	000
1	001
0	001
1	010
0	010
0	011
1	011
1	100
0	100
0	101
1	101
0	01100
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111

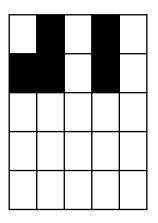




	7	
W	С	Ε
	S	

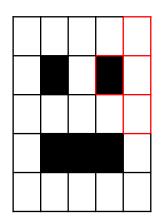
0 1 1 0 1 0 0 1 1 0 0 1 1	CNESW 00000 00001 00011 000110 00110 01001 01101 01100 01100
1 0 1 0 0 1	000
0 1 1 0 0 1	010 010 011 011 100
1 0 1 0 0 1	101 101 110 1110 1111

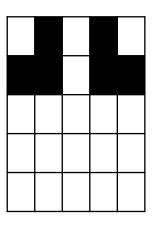




	7	
W	С	Ε
	S	

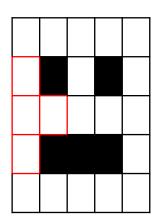
	VES
0	000
1	000
1	001
0	001
1	010
0	010
0	011
1	011
1	100
0	100
0	101
1	101
0	01100
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111

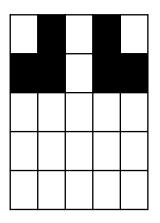




	N	
W	С	Ε
	S	

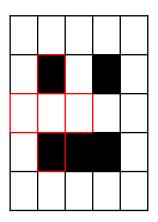
VES	00000	000	001	001	010	010	011	011	100	100	101	101	110	110	111	111	000	000	001	001	010	010	011	011	100	100	101	101	110	110	111	111
	0	1	1	0	1	0	0	1	1	0	0	1	0	1	1	0	1	0	0	1	0	1	1	0	0	1	1	0	1	0	0	1

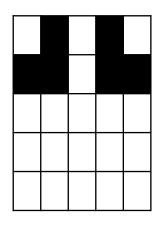




	7	
W	С	Ε
	S	

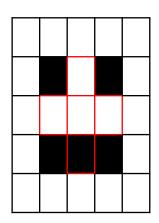
0	
1 1	318
0	001
1	010
0	010
0	011
1	011
1	100
0	100
0	101
1	101
0	110
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111

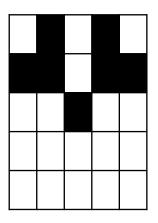




	N	
W	С	Ε
	S	

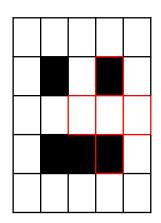
0 1 1 0 1 0 0 1 1 0	CNESW 00000 00001 00011 00110 00111 00111 01000 01000
0 1 0 1 1 0 1	101 110 1110 1111 1111 1111
. 0 0 1 0 1 1	000 001 010 010 011
0 0 1 1 0 1 0 0 1	011 100 100 101 101 1110 1111

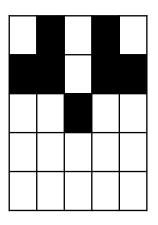




	7	
W	С	Ε
	S	

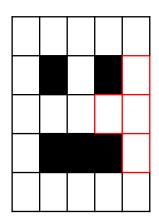
CNECW	≥از			001	001	010	010	011	00111	100	100	101	101	110	110	111	111	000	000	001	001	010	010	011	011	100	100	101	101	110	110	111	111
		)	1	1	0	1	0	0	1	1	0	0	1	0	1	1	0	1	0	0	1	0	1	1	0	0	1	1	0	1	0	0	1

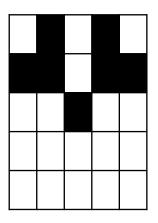




	N	
W	С	Ε
	S	

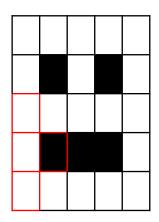
0 1 1 0 1 0 0 1	CNESW 00000 00001 00010 00110 00111 00111
0 0 1 0	10 <mark>12</mark>  8 8
0 1 1 0 1 0 0	10001110001
1 0 1 1 0 0	01 11 11 10 11 11 10
1 1 0 1 0 0 1	111111111111111111111111111111111111111

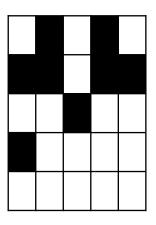




	7	
W	С	Ε
	S	

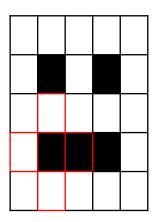
0	
1	00001
1	001
0	001
1	01
0	010
0	011
1	011
1	100
0	100
0	101
1	101
0	110
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111

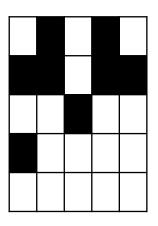




	7	
W	С	Ε
	S	

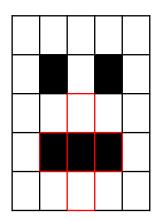
	ES
0	8
1	00
1	01
0	01
1	10
0	10
0	11
1	11
1	00
0	00
0	01
1	01
0	01100
1	10
1	11
0	11
1	8
0	00
0	01
1	01
0	10
1	10
1	11
0	11
0	00
1	00
1	01
0	01
1	10
0	10
0	11
1	11

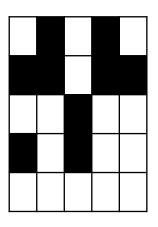




	Z	
W	С	Ε
	S	

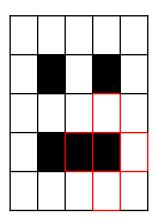
	VES
0	000
1	000
1	001
0	001
1	010
0	010
0	011
1	011
1	100
0	100
0	101
1	101
0	01100
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111

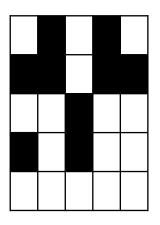




	7	
W	С	Ε
	S	

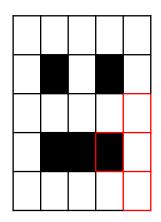
	انبا
0	$\frac{0}{0}$
1	000
1	001
0	001
1	00100
0	010
0	011
1	011
1	100
0	100
0	101
1	101
0	110
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111

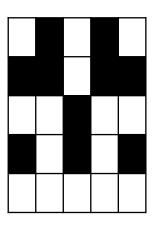




	N	
W	С	Ε
	S	

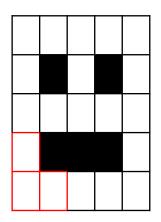
	CNESW
0	000
1	000
1	001
0	001
1	00100
0	010
0	011
1	011
1	100
0	100
0	101
1	101
0	110
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111

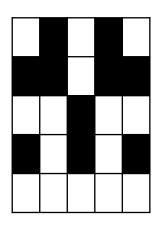




	N	
W	С	Ε
	S	

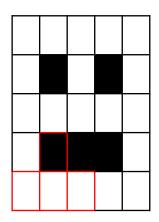
0	<b>CNESW</b> 00000
1	000
1	001
0	001
1	010
0	010
0	011
1	011
1	100
0	100
0	101
1	101
0	110
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111

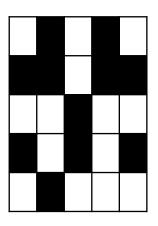




	N	
W	С	Ε
	S	

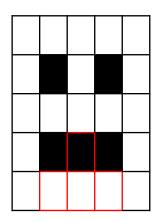
	CNESW
0	00
1	000
1	001
0	001
1	00100
0	010
0	011
1	011
1	100
0	100
0	101
1	101
0	110
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111

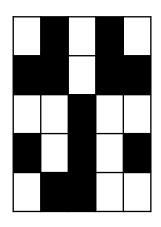




	7	
W	С	Ε
	S	

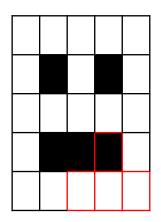
0 1	<b>CNESW</b> 00000
1	01
0	01
1	10
0	10
0	11
1	11
1	00
0	8
0	01
1	01
0	10
1	10
1	11
0	11
1	8
0	00
0	01
1	01
0	10
1	10
1	11
0	11
0	00
1	00
1	01
0	01
1	10
0	10
0	11
1	11

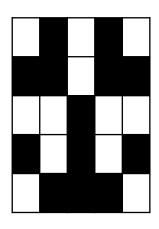




	N	
W	С	Ε
	S	

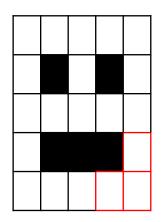
0 1 1 0 1 0 0 1 1 0 0 1 0 1 0 1 0 1 0 0 1	CNESW 00000 00001 00010 00011 001101 01001 01100 011101 011111 10000 10001 10001 10001 10001
1 1	$\frac{010}{011}$
0 0	$\frac{011}{100}$
1 1	100
0 1	101 110
0 0 1	$\frac{110}{111}$

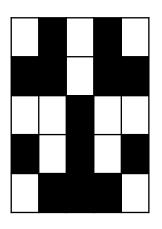




	N	
W	С	Ε
	S	

0 1 1 0 1 0 0 1 1 0 0 1 0 1 0 1 0 0 1	CNESW 00000 00001 00010 00011 00110 01100 01100 01110 01111 01111 10000 10001 10001 10000
1 1	010
0 0	011 100
1 1	100 101
0 1 0	101 110 110
0 1	111





The first matrix is generated.

	7	
W	С	Ε
	S	

0	
1	00001
1	001
0	001
1	01
0	010
0	011
1	011
1	100
0	100
0	101
1	101
0	110
1	110
1	111
0	111
1	000
0	000
0	001
1	001
0	010
1	010
1	011
0	011
0	100
1	100
1	101
0	101
1	110
0	110
0	111
1	111