

The new logic-based number-placement puzzle ©KAOSKVAD:

# Kaos Square

The game is created and based on **Kaos Squares**. These squares are the opposite to Magic Squares. A Kaos Square is an arrangement of distinct numbers (i.e. each number is used once) in a square grid, where the numbers in each row, and in each column, and the numbers in the two main diagonals add up to **different sums** from each other. The objective is to fill a partially completed grid with right digits and with the right sums. Every puzzle has a unique solution.

Kaos squares cannot be constructed by formulas such as Magic Squares can. This because of their antisymmetry. Every new square must be found originally. Kaos is the swedish word for chaos. Kaos Squares exist in every size and in mathematics they are called Hetero squares. Anti magic squares are a special form of them with all sums forming a sequence of consecutive integers.

KAOSKVAD was discovered and developed 2014 in Sweden.

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Example 1 (easy)

9	12	19	14
11		5	4
18	3		
16			1
17	Kaos Square		

Solution 1

9	12	19	14
11	2	5	4
18	3	6	9
16	7	8	1
17	Kaos Square		

Here you have to take care to the different sums.  
It needs more logical steps.

Example 2 (more difficult)

			9
	3		
	7		2
10			
	Kaos Square		

Solution 2

13	15	21	9
17	3	8	6
18	7	9	2
10	5	4	1
20	Kaos Square		

# Kaos Block

A Kaos Block consists of 4 Kaos Squares to solve. Within every Kaos Block one shall find out a key number. The key number is the same number in the same place in all 4 squares. There is only one solution.

13	8	17	20	6			
11	1					6	16
15			9				
19		6		1	8		
19							22
	2	5	9		7		15
							8
	7	18	20	11	20	14	18

Solution with the key number: 2

13	8	17	20	6	19	20	11
11	<b>1</b>	7	3	3	7	6	16
15	<b>2</b>	4	9	<b>2</b>	4	9	15
19	5	6	8	1	8	5	14
19	4	7	8	8	9	5	22
16	<b>2</b>	5	9	<b>2</b>	7	6	15
10	1	6	3	1	4	3	8
14	7	18	20	11	20	14	18

# Kaos Kvad

A Kaos Kvad consists of 4 Kaos Blocks with 16 Kaos Squares in total. You begin solving the upper left Block and go to upper right, continuing down left and finish with down right. Every Block has a key number. The key number is the same number in the same place in all 4 squares in a Block. You always take the key number/s from a Block to the next Block and place them. There exists only one solution for every Kaos Square and the whole Kaos Kvad.



*The 4 keynumbers can be combined to a date.  
In which year began Queen Victoria to rule  
Great Britain and Ireland?*

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19	21	10	14		6						15	21	9	8	
12		3		8				11			2		9	19	
16			7		2	9		13		4				14	
17	9							13			7			4	12
24					7	9									13
10		3		1			9		6	4			7	3	
11				2	6				5	1		9			
17	19	12	14								18				
				14	15	16	11			13					
21		7					23								14
10							12								
14			9				10								
12															
	13	21	11				18			16					23

Solution with 4 key numbers: 8,3,1,7

Year

1	8	3	7
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19	21	10	14	18	6	21	13	19	23	10	12	15	21	9	8
12	<b>8</b>	3	<b>1</b>	<b>8</b>	1	5	14	11	<b>8</b>	1	2	<b>8</b>	9	2	19
16	4	5	7	4	2	9	15	13	6	4	<b>3</b>	6	5	<b>3</b>	14
17	9	2	6	6	3	7	16	21	9	5	7	1	7	4	12
24	<b>8</b>	7	9	<b>8</b>	7	9	24	17	<b>8</b>	7	2	<b>8</b>	4	1	13
10	6	3	1	1	3	5	9	13	6	4	<b>3</b>	2	7	<b>3</b>	12
11	5	2	4	2	6	4	12	15	5	1	9	9	5	6	20
17	19	12	14	11	16	18	15	11	19	12	14	19	16	10	21
22	11	16	18	14	15	16	11	21	14	13	18	15	20	10	12
21	<b>8</b>	7	6	<b>8</b>	9	6	23	16	<b>8</b>	2	6	<b>8</b>	4	2	14
10	2	5	<b>3</b>	5	4	<b>3</b>	12	12	5	4	<b>3</b>	6	9	<b>3</b>	18
14	<b>1</b>	4	9	<b>1</b>	2	7	10	17	<b>1</b>	7	9	<b>1</b>	7	5	13
17	<b>8</b>	7	2	<b>8</b>	7	2	17	21	<b>8</b>	4	9	<b>8</b>	5	2	15
12	4	5	<b>3</b>	5	4	<b>3</b>	12	10	2	5	<b>3</b>	4	9	<b>3</b>	16
16	<b>1</b>	9	6	<b>1</b>	9	6	16	14	<b>1</b>	7	6	<b>1</b>	7	6	14
8	13	21	11	14	20	11	18	15	11	16	18	13	21	11	23

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Here a version for children.

## Find the Key Number



17	19	6	20	18	8	19	11
15			4	8			
		2			2	9	15
14	6	1					
	8		2	1		4	11
11	6			8		2	19
			7	3			15
15	23	12	10	12		13	17

Solution. Key Number is 7.

17	19	6	20	18	8	19	11
15			4	8			
		2			2	9	15
14	6	1					
	8		2	1		4	11
11	6			8		2	19
			7	3			15
15	23	12	10	12		13	17