Representations of Letters and Numbers With Equal Sums Magic Squares of Orders 4 and 6

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Abstract

This work brings 26 letters from A to Z and 10 numbers from 0 to 9 in terms of blocks of magic squares of orders 4 and 6. Letters and numbers ares constructed with blocks of equal sums magic squares of orders 4 and 6. In each case, consecutive natural numbers are used starting from 1, and there is no repetition of numbers.

Contents

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1 Introduction

Below are two basic magic squares of orders 4 and 6 given in separate subsections.

1.1 Magic Square of Order 4

The **Khajuraho magic square** of order 4 is famous in the literature as one of the most **most perfect magic square** of order 4. It is studied around 10th century. The original plate of this magic square seen at **Parshvanath Jain temple in Khajuraho** – (*Link: Wikipedia – https://goo.gl/nsYn2j*):

Most-perfect magic square from the Parshvanath Jain temple in Khajuraho

It is also **pan diagonal magic square** of order 4 given in example below.

Example 1.1. *Let's rewrite **Khajuraho magic square** as **pan magic** square of order 4.*

		34	34	34	34
	7	12	1	14	34
34	2	13	8	11	34
34	16	3	10	5	34
34	9	6	15	4	34
	34	34	34	34	34

Below are some properties in colors resulting magic square sums for each color:

7	12	1	14
2	13	8	11
16	3	10	5
9	6	15	4

7	12	1	14
2	13	8	11
16	3	10	5
9	6	15	4

7	12	1	14
2	13	8	11
16	3	10	5
9	6	15	4

7	12	1	14
2	13	8	11
16	3	10	5
9	6	15	4

7	12	1	14
2	13	8	11
16	3	10	5
9	6	15	4

7	12	1	14
2	13	8	11
16	3	10	5
9	6	15	4

7	12	1	14
2	13	8	11
16	3	10	5
9	6	15	4

7	12	1	14
2	13	8	11
16	3	10	5
9	6	15	4

In this paper, our aim is to bring alphabetical letters from A to Z and numbers from 0 to 9 in terms of blocks of magic square of order 4 with the property that in each case, the blocks of order 4 magic squares are of equal magic sums

1.2 Magic Square of Order 6

Below is a magic square of order 6. It shall be used frequently to construct Letters and Numbers.

Example 1.2. *Let's consider a magic square of order 6.*

						111
1	35	34	33	2	6	111
30	8	28	9	11	25	111
24	23	15	16	20	13	111
18	14	21	22	17	19	111
7	26	10	27	29	12	111
31	5	3	4	32	36	111
111	111	111	111	111	111	111

The above magic square of order 6 is due to M. Nakamura [?]. Our aim in this paper is to construct **letters** and **numbers** based on magic squares of order 6. This we have done by considering 6 × 6 blocks of equal magic sums with consecutive numbers for each letter and each number. The block-wise construction of magic squares with respective distributions using consecutive numbers is given in Appendix ??.

2 Letters With Blocks of Magic Square of Order 4

We shall construct all the letters from A to Z using blocks **pandiagonal** squares of order 4. In each letter, the numbers used are without repetition and are consecutive numbers starting from 1 onward. Each letter is complete in itself. The construction of blocks of order 4 is given in Appendix 6.

2.1 Letter A

In this subsection, we construction letter A using 11 blocks of order 4 magic squares. The entries are consecutive numbers from 1 to 176. Let's consider the following distribution:

Example 2.1. *Below is a letters "A" written in terms of **pandiagonal** squares of order 4:*

				6	91	150	139				
				163	126	19	78				
				43	54	187	102				
				174	115	30	67				
	5	92	149	140			7	90	151	138	
	164	125	20	77			162	127	18	79	
	44	53	188	101			42	55	186	103	
	173	116	29	68			175	114	31	66	
4	93	148	141					8	89	152	137
165	124	21	76					161	128	17	80
45	52	189	100					41	56	185	104
172	117	28	69					176	113	32	65
3	94	147	142					9	88	153	136
166	123	22	75					160	129	16	81
46	51	190	99					40	57	184	105
171	118	27	70					177	112	33	64
2	95	146	143	12	85	156	133	10	87	154	135
167	122	23	74	157	132	13	84	159	130	15	82
47	50	191	98	37	60	181	108	39	58	183	106
170	119	26	71	180	109	36	61	178	111	34	63
1	96	145	144					11	86	155	134
168	121	24	73					158	131	14	83
48	49	192	97					38	59	182	107
169	120	25	72					179	110	35	62

The above letter "A" is compose of consecutive numbers from 1 to 192. These numbers gives us 12 blocks of equal sums **pandiagonal** squares of order 4 with magic sums $S_{4\times4} := 386$ as given in Example 6.8.

2.2 Letter B

Example 2.2. *Below is a letter "B" written in two different ways in terms of **pandiagonal** squares of order 4:*

7	122	199	186	8	121	200	185					
218	167	26	103	217	168	25	104					
58	71	250	135	57	72	249	136					
231	154	39	90	232	153	40	89					
6	123	198	187				9	120	201	184		
219	166	27	102				216	169	24	105		
59	70	251	134				56	73	248	137		
230	155	38	91				233	152	41	88		
5	124	197	188				10	119	202	183		
220	165	28	101				215	170	23	106		
60	69	252	133				55	74	247	138		
229	156	37	92				234	151	42	87		
4	125	196	189	12	117	204	181	11	118	203	182	
221	164	29	100	213	172	21	108	214	171	22	107	
61	68	253	132	53	76	245	140	54	75	246	139	
228	157	36	93	236	149	44	85	235	150	43	86	
3	126	195	190						13	116	205	180
222	163	30	99						212	173	20	109
62	67	254	131						52	77	244	141
227	158	35	94						237	148	45	84
2	127	194	191						14	115	206	179
223	162	31	98						211	174	19	110
63	66	255	130						51	78	243	142
226	159	34	95						238	147	46	83
1	128	193	192	16	113	208	177	15	114	207	178	
224	161	32	97	209	176	17	112	210	175	18	111	
64	65	256	129	49	80	241	144	50	79	242	143	
225	160	33	96	240	145	48	81	239	146	47	82	

7	130	211	198	8	129	212	197	9	128	213	196		
232	177	28	109	231	178	27	110	230	179	26	111		
62	75	266	143	61	76	265	144	60	77	264	145		
245	164	41	96	246	163	42	95	247	162	43	94		
6	131	210	199							10	127	214	195
233	176	29	108							229	180	25	112
63	74	267	142							59	78	263	146
244	165	40	97							248	161	44	93
5	132	209	200							11	126	215	194
234	175	30	107							228	181	24	113
64	73	268	141							58	79	262	147
243	166	39	98							249	160	45	92
4	133	208	201	13	124	217	192	12	125	216	193		
235	174	31	106	226	183	22	115	227	182	23	114		
65	72	269	140	56	81	260	149	57	80	261	148		
242	167	38	99	251	158	47	90	250	159	46	91		
3	134	207	202							14	123	218	191
236	173	32	105							225	184	21	116
66	71	270	139							55	82	259	150
241	168	37	100							252	157	48	89
2	135	206	203							15	122	219	190
237	172	33	104							224	185	20	117
67	70	271	138							54	83	258	151
240	169	36	101							253	156	49	88
1	136	205	204	17	120	221	188	16	121	220	189		
238	171	34	103	222	187	18	119	223	186	19	118		
68	69	272	137	52	85	256	153	53	84	257	152		
239	170	35	102	255	154	51	86	254	155	50	87		

- The first letter "B" is compose of 16 blocks of **pandiagonal** squares of order 4 with equal magic sums using the consecutive numbers from 1 to 256 as given in 6.12. The magic sums of each block is $S_{4\times4} := 514$.
- The second letter "B" is compose of 17 blocks of **pandiagonal** squares of order 4 with equal magic sums using the consecutive numbers from 1 to 272 as given in 6.13. The magic sums of each block is $S_{4\times4} := 546$.

2.3 Letter C

Example 2.3. *Below are two different ways of writing letter "C" in terms of* ***pandiagonal*** *squares of order 4:*

8	81	140	125	9	80	141	124	10	79	142	123
147	118	15	74	146	119	14	75	145	120	13	76
37	52	169	96	36	53	168	97	35	54	167	98
162	103	30	59	163	102	31	58	164	101	32	57
7	82	139	126					11	78	143	122
148	117	16	73					144	121	12	77
38	51	170	95					34	55	166	99
161	104	29	60					165	100	33	56
6	83	138	127								
149	116	17	72								
39	50	171	94								
160	105	28	61								
5	84	137	128					1	88	133	132
150	115	18	71					154	111	22	67
40	49	172	93					44	45	176	89
159	106	27	62					155	110	23	66
4	85	136	129	3	86	135	130	2	87	134	131
151	114	19	70	152	113	20	69	153	112	21	68
41	48	173	92	42	47	174	91	43	46	175	90
158	107	26	63	157	108	25	64	156	109	24	65

7	66	115	102	8	65	116	101	9	64	117	100
120	97	12	61	119	98	11	62	118	99	10	63
30	43	138	79	29	44	137	80	28	45	136	81
133	84	25	48	134	83	26	47	135	82	27	46
6	67	114	103								
121	96	13	60								
31	42	139	78								
132	85	24	49								
5	68	113	104								
122	95	14	59								
32	41	140	77								
131	86	23	50								
4	69	112	105								
123	94	15	58								
33	40	141	76								
130	87	22	51								
3	70	111	106	2	71	110	107	1	72	109	108
124	93	16	57	125	92	17	56	126	91	18	55
34	39	142	75	35	38	143	74	36	37	144	73
129	88	21	52	128	89	20	53	127	90	19	54

We have written the letter "**C**" in two different ways.

- The first letter "**C**" is with consecutive numbers from 1 to 176 resulting in 11 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 354$ as given in Example 6.7.
- The second letter "**C**" is formed by consecutive numbers from 1 to 144 resulting in 9 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 290$ as given in Example 6.5.

2.4 Letter D

Example 2.4. *Below are two different ways of writing letter "**D**" in terms of **pandiagonal** squares of order 4:*

6	91	150	139	7	90	151	138			
163	126	19	78	162	127	18	79			
43	54	187	102	42	55	186	103			
174	115	30	67	175	114	31	66			
5	92	149	140			8	89	152	137	
164	125	20	77			161	128	17	80	
44	53	188	101			41	56	185	104	
173	116	29	68			176	113	32	65	
4	93	148	141				9	88	153	136
165	124	21	76				160	129	16	81
45	52	189	100				40	57	184	105
172	117	28	69				177	112	33	64
3	94	147	142				10	87	154	135
166	123	22	75				159	130	15	82
46	51	190	99				39	58	183	106
171	118	27	70				178	111	34	63
2	95	146	143			11	86	155	134	
167	122	23	74			158	131	14	83	
47	50	191	98			38	59	182	107	
170	119	26	71			179	110	35	62	
1	96	145	144	12	85	156	133			
168	121	24	73	157	132	13	84			
48	49	192	97	37	60	181	108			
169	120	25	72	180	109	36	61			

5	76	125	116	6	75	126	115			
136	105	16	65	135	106	15	66			
36	45	156	85	35	46	155	86			
145	96	25	56	146	95	26	55			
4	77	124	117			7	74	127	114	
137	104	17	64			134	107	14	67	
37	44	157	84			34	47	154	87	
144	97	24	57			147	94	27	54	
3	78	123	118				8	73	128	113
138	103	18	63				133	108	13	68
38	43	158	83				33	48	153	88
143	98	23	58				148	93	28	53
2	79	122	119			9	72	129	112	
139	102	19	62			132	109	12	69	
39	42	159	82			32	49	152	89	
142	99	22	59			149	92	29	52	
1	80	121	120	10	71	130	111			
140	101	20	61	131	110	11	70			
40	41	160	81	31	50	151	90			
141	100	21	60	150	91	30	51			

We have written the letter "**D**" in two different ways.

- The first letter "**D**" is with consecutive numbers from 1 to 192 resulting in 12 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 386$ as given in Example 6.8.
- The second letter "**D**" is formed by consecutive numbers from 1 to 160 resulting in 10 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 322$ as given in Example 6.6.

2.5 Letters E and F

Example 2.5. *Below are letters "**E**" and "**F**" written in terms of **pandiagonal** squares of order 4:*

8	73	128	113	9	72	129	112	10	71	130	111
133	108	13	68	132	109	12	69	131	110	11	70
33	48	153	88	32	49	152	89	31	50	151	90
148	93	28	53	149	92	29	52	150	91	30	51
7	74	127	114								
134	107	14	67								
34	47	154	87								
147	94	27	54								
5	76	125	116	6	75	126	115				
136	105	16	65	135	106	15	66				
36	45	156	85	35	46	155	86				
145	96	25	56	146	95	26	55				
4	77	124	117								
137	104	17	64								
37	44	157	84								
144	97	24	57								
3	78	123	118	2	79	122	119	1	80	121	120
138	103	18	63	139	102	19	62	140	101	20	61
38	43	158	83	39	42	159	82	40	41	160	81
143	98	23	58	142	99	22	59	141	100	21	60

6	59	102	91	7	58	103	90	8	57	104	89
107	86	11	54	106	87	10	55	105	88	9	56
27	38	123	70	26	39	122	71	25	40	121	72
118	75	22	43	119	74	23	42	120	73	24	41
5	60	101	92								
108	85	12	53								
28	37	124	69								
117	76	21	44								
3	62	99	94	4	61	100	93				
110	83	14	51	109	84	13	52				
30	35	126	67	29	36	125	68				
115	78	19	46	116	77	20	45				
2	63	98	95								
111	82	15	50								
31	34	127	66								
114	79	18	47								
1	64	97	96								
112	81	16	49								
32	33	128	65								
113	80	17	48								

- The above letter "E" is compose of consecutive numbers from 1 to 160. These numbers gives us 10 blocks of equal sums **pandiagonal** squares of order 4 with magic sums $S_{4\times4} := 322$.
- The above letter "F" is compose of consecutive numbers from 1 to 128. These numbers gives us 8 blocks of equal sums **pandiagonal** squares of order 4 with magic sums $S_{4\times4} := 258$.

2.6 Letter G

Example 2.6. *Below, there are three different ways of writing letter "G" in terms of* ***pandiagonal*** *squares of order 4:*

12	117	204	181	13	116	205	180	14	115	206	179	15	114	207	178
213	172	21	108	212	173	20	109	211	174	19	110	210	175	18	111
53	76	245	140	52	77	244	141	51	78	243	142	50	79	242	143
236	149	44	85	237	148	45	84	238	147	46	83	239	146	47	82
11	118	203	182									16	113	208	177
214	171	22	107									209	176	17	112
54	75	246	139									49	80	241	144
235	150	43	86									240	145	48	81
10	119	202	183												
215	170	23	106												
55	74	247	138												
234	151	42	87												
9	120	201	184					1	128	193	192	2	127	194	191
216	169	24	105					224	161	32	97	223	162	31	98
56	73	248	137					64	65	256	129	63	66	255	130
233	152	41	88					225	160	33	96	226	159	34	95
8	121	200	185									3	126	195	190
217	168	25	104									222	163	30	99
57	72	249	136									62	67	254	131
232	153	40	89									227	158	35	94
7	122	199	186	6	123	198	187	5	124	197	188	4	125	196	189
218	167	26	103	219	166	27	102	220	165	28	101	221	164	29	100
58	71	250	135	59	70	251	134	60	69	252	133	61	68	253	132
231	154	39	90	230	155	38	91	229	156	37	92	228	157	36	93

9	80	141	124	10	79	142	123	11	78	143	122
146	119	14	75	145	120	13	76	144	121	12	77
36	53	168	97	35	54	167	98	34	55	166	99
163	102	31	58	164	101	32	57	165	100	33	56
8	81	140	125								
147	118	15	74								
37	52	169	96								
162	103	30	59								
7	82	139	126				1	88	133	132	
148	117	16	73				154	111	22	67	
38	51	170	95				44	45	176	89	
161	104	29	60				155	110	23	66	
6	83	138	127					2	87	134	131
149	116	17	72					153	112	21	68
39	50	171	94					43	46	175	90
160	105	28	61					156	109	24	65
5	84	137	128	4	85	136	129	3	86	135	130
150	115	18	71	151	114	19	70	152	113	20	69
40	49	172	93	41	48	173	92	42	47	174	91
159	106	27	62	158	107	26	63	157	108	25	64

8	73	128	113	9	72	129	112	10	71	130	111
133	108	13	68	132	109	12	69	131	110	11	70
33	48	153	88	32	49	152	89	31	50	151	90
148	93	28	53	149	92	29	52	150	91	30	51
7	74	127	114								
134	107	14	67								
34	47	154	87								
147	94	27	54								
6	75	126	115								
135	106	15	66								
35	46	155	86								
146	95	26	55								
5	76	125	116					1	80	121	120
136	105	16	65					140	101	20	61
36	45	156	85					40	41	160	81
145	96	25	56					141	100	21	60
4	77	124	117	3	78	123	118	2	79	122	119
137	104	17	64	138	103	18	63	139	102	19	62
37	44	157	84	38	43	158	83	39	42	159	82
144	97	24	57	143	98	23	58	142	99	22	59

We have written the letter "**G**" in three different ways.

- The first letter "**G**" is with consecutive numbers from 1 to 256 resulting in 16 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 514$ as given in Example 6.12.
- The second letter "**G**" is formed by consecutive numbers from 1 to 176 resulting in 11 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 354$ as given in Example 6.7.
- The third letter "**G**" is of elevator type formed by consecutive numbers from 1 to 160 resulting in 10 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 322$ as given in Example 6.6.

2.7 Letter H and I

Example 2.7. *Below are letters "H" and "I" written in terms of **pandiagonal** squares of order 4:*

5	84	137	128					6	83	138	127
150	115	18	71					149	116	17	72
40	49	172	93					39	50	171	94
159	106	27	62					160	105	28	61
4	85	136	129					7	82	139	126
151	114	19	70					148	117	16	73
41	48	173	92					38	51	170	95
158	107	26	63					161	104	29	60
3	86	135	130	11	78	143	122	8	81	140	125
152	113	20	69	144	121	12	77	147	118	15	74
42	47	174	91	34	55	166	99	37	52	169	96
157	108	25	64	165	100	33	56	162	103	30	59
2	87	134	131					9	80	141	124
153	112	21	68					146	119	14	75
43	46	175	90					36	53	168	97
156	109	24	65					163	102	31	58
1	88	133	132					10	79	142	123
154	111	22	67					145	120	13	76
44	45	176	89					35	54	167	98
155	110	23	66					164	101	32	57

6	51	90	79	7	50	91	78
93	76	9	48	92	77	8	49
23	34	107	62	22	35	106	63
104	65	20	37	105	64	21	36
		5	52	89	80		
		94	75	10	47		
		24	33	108	61		
		103	66	19	38		
		4	53	88	81		
		95	74	11	46		
		25	32	109	60		
		102	67	18	39		
		3	54	87	82		
		96	73	12	45		
		26	31	110	59		
		101	68	17	40		
1	56	85	84	2	55	86	83
98	71	14	43	97	72	13	44
28	29	112	57	27	30	111	58
99	70	15	42	100	69	16	41

5	36	65	56
66	55	6	35
16	25	76	45
75	46	15	26
4	37	64	57
67	54	7	34
17	24	77	44
74	47	14	27
3	38	63	58
68	53	8	33
18	23	78	43
73	48	13	28
2	39	62	59
69	52	9	32
19	22	79	42
72	49	12	29
1	40	61	60
70	51	10	31
20	21	80	41
71	50	11	30

- The letter "**H**" is formed by consecutive numbers from 1 to 176 resulting in 11 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 354$ as given in Example 6.7.

- The first letter **"I"** is with consecutive numbers from 1 to 112 resulting in 7 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 226$ as given in Example 6.3.
- The second letter **"I"** is formed by consecutive numbers from 1 to 80 resulting in 5 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 162$ as given in Example 6.1.

2.8 Letters J and K

Example 2.8. *Below are letters "J" and "K" written in terms of **pandiagonal** squares of order 4:*

								8	57	104	89
								105	88	9	56
								25	40	121	72
								120	73	24	41
								7	58	103	90
								106	87	10	55
								26	39	122	71
								119	74	23	42
								6	59	102	91
								107	86	11	54
								27	38	123	70
								118	75	22	43
1	64	97	96					5	60	101	92
112	81	16	49					108	85	12	53
32	33	128	65					28	37	124	69
113	80	17	48					117	76	21	44
2	63	98	95	3	62	99	94	4	61	100	93
111	82	15	50	110	83	14	51	109	84	13	52
31	34	127	66	30	35	126	67	29	36	125	68
114	79	18	47	115	78	19	46	116	77	20	45

5	76	125	116					8	73	128	113
136	105	16	65					133	108	13	68
36	45	156	85					33	48	153	88
145	96	25	56					148	93	28	53
4	77	124	117			7	74	127	114		
137	104	17	64			134	107	14	67		
37	44	157	84			34	47	154	87		
144	97	24	57			147	94	27	54		
3	78	123	118	6	75	126	115				
138	103	18	63	135	106	15	66				
38	43	158	83	35	46	155	86				
143	98	23	58	146	95	26	55				
2	79	122	119			9	72	129	112		
139	102	19	62			132	109	12	69		
39	42	159	82			32	49	152	89		
142	99	22	59			149	92	29	52		
1	80	121	120					10	71	130	111
140	101	20	61					131	110	11	70
40	41	160	81					31	50	151	90
141	100	21	60					150	91	30	51

- The letter **"J"** is formed by consecutive numbers from 1 to 128 resulting in 8 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 258$ as given in Example 6.4.
- The letter **"K"** is formed by consecutive numbers from 1 to 160 resulting in 10 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 322$ as given in Example 6.6.

2.9 Letter L

Example 2.9. *Below is a letter "L" written in terms of **pandiagonal** squares of order 4:*

7	50	91	78								
92	77	8	49								
22	35	106	63								
105	64	21	36								
6	51	90	79								
93	76	9	48								
23	34	107	62								
104	65	20	37								
5	52	89	80								
94	75	10	47								
24	33	108	61								
103	66	19	38								
4	53	88	81								
95	74	11	46								
25	32	109	60								
102	67	18	39								
3	54	87	82	2	55	86	83	1	56	85	84
96	73	12	45	97	72	13	44	98	71	14	43
26	31	110	59	27	30	111	58	28	29	112	57
101	68	17	40	100	69	16	41	99	70	15	42

The letter **"L"** is formed by consecutive numbers from 1 to 112 resulting in 7 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 226$ as given in Example 6.3.

2.10 Letter M

Example 2.10. *Below, there are three different ways of writing letter* ***"G"*** *in terms of* ***pandiagonal*** *squares of order 4:*

5	100	161	152											9	96	165	148
178	135	22	83											174	139	18	87
48	57	204	109	6	99	162	151			8	97	164	149	44	61	200	113
187	126	31	74	177	136	21	84			175	138	19	86	191	122	35	70
4	101	160	153	47	58	203	110			45	60	201	112	10	95	166	147
179	134	23	82	188	125	32	73			190	123	34	71	173	140	17	88
49	56	205	108				7	98	163	150				43	62	199	114
186	127	30	75				176	137	20	85				192	121	36	69
3	102	159	154				46	59	202	111				11	94	167	146
180	133	24	81				189	124	33	72				172	141	16	89
50	55	206	107											42	63	198	115
185	128	29	76											193	120	37	68
2	103	158	155											12	93	168	145
181	132	25	80											171	142	15	90
51	54	207	106											41	64	197	116
184	129	28	77											194	119	38	67
1	104	157	156											13	92	169	144
182	131	26	79											170	143	14	91
52	53	208	105											40	65	196	117
183	130	27	78											195	118	39	66

5	116	185	176											11	110	191	170
206	155	26	95											200	161	20	101
56	65	236	125	6	115	186	175			10	111	190	171	50	71	230	131
215	146	35	86	205	156	25	96			201	160	21	100	221	140	41	80
4	117	184	177	55	66	235	126			51	70	231	130	12	109	192	169
207	154	27	94	216	145	36	85			220	141	40	81	199	162	19	102
57	64	237	124		7	114	187	174	8	113	188	173		49	72	229	132
214	147	34	87		204	157	24	97	203	158	23	98		222	139	42	79
3	118	183	178		54	67	234	127	53	68	233	128		13	108	193	168
208	153	28	93		217	144	37	84	218	143	38	83		198	163	18	103
58	63	238	123				9	112	189	172				48	73	228	133
213	148	33	88				202	159	22	99				223	138	43	78
2	119	182	179				52	69	232	129				14	107	194	167
209	152	29	92				219	142	39	82				197	164	17	104
59	62	239	122											47	74	227	134
212	149	32	89											224	137	44	77
1	120	181	180											15	106	195	166
210	151	30	91											196	165	16	105
60	61	240	121											46	75	226	135
211	150	31	90											225	136	45	76

We have written the letter **"M"** in two different ways.

- The first letter **"M"** is with consecutive numbers from 1 to 208 resulting in 13 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 418$ as given in Example 6.9.
- The second letter **"M"** is formed by consecutive numbers from 1 to 240 resulting in 15 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 482$ as given in Example 6.11.

2.11 Letters N and O

Example 2.11. *Below are letters "N" and "O" written in terms of **pandiagonal** squares of order 4:*

5	100	161	152					9	96	165	148
178	135	22	83					174	139	18	87
48	57	204	109	6	99	162	151	44	61	200	113
187	126	31	74	177	136	21	84	191	122	35	70
4	101	160	153	47	58	203	110	10	95	166	147
179	134	23	82	188	125	32	73	173	140	17	88
49	56	205	108	7	98	163	150	43	62	199	114
186	127	30	75	176	137	20	85	192	121	36	69
3	102	159	154	46	59	202	111	11	94	167	146
180	133	24	81	189	124	33	72	172	141	16	89
50	55	206	107	8	97	164	149	42	63	198	115
185	128	29	76	175	138	19	86	193	120	37	68
2	103	158	155	45	60	201	112	12	93	168	145
181	132	25	80	190	123	34	71	171	142	15	90
51	54	207	106					41	64	197	116
184	129	28	77					194	119	38	67
1	104	157	156					13	92	169	144
182	131	26	79					170	143	14	91
52	53	208	105					40	65	196	117
183	130	27	78					195	118	39	66

5	92	149	140	6	91	150	139	7	90	151	138
164	125	20	77	163	126	19	78	162	127	18	79
44	53	188	101	43	54	187	102	42	55	186	103
173	116	29	68	174	115	30	67	175	114	31	66
4	93	148	141					8	89	152	137
165	124	21	76					161	128	17	80
45	52	189	100					41	56	185	104
172	117	28	69					176	113	32	65
3	94	147	142					9	88	153	136
166	123	22	75					160	129	16	81
46	51	190	99					40	57	184	105
171	118	27	70					177	112	33	64
2	95	146	143					10	87	154	135
167	122	23	74					159	130	15	82
47	50	191	98					39	58	183	106
170	119	26	71					178	111	34	63
1	96	145	144	12	85	156	133	11	86	155	134
168	121	24	73	157	132	13	84	158	131	14	83
48	49	192	97	37	60	181	108	38	59	182	107
169	120	25	72	180	109	36	61	179	110	35	62

- The letter "N" is formed by consecutive numbers from 1 to 208 resulting in 13 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 418$ as given in Example 6.9.
- The letter "O" is formed by consecutive numbers from 1 to 192 resulting in 12 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 386$ as given in Example 6.8.

2.12 Letters P and Q

Example 2.12. *Below are letters "P" and "Q" written in terms of **pandiagonal** squares of order 4:*

5	76	125	116	6	75	126	115	7	74	127	114
136	105	16	65	135	106	15	66	134	107	14	67
36	45	156	85	35	46	155	86	34	47	154	87
145	96	25	56	146	95	26	55	147	94	27	54
4	77	124	117					8	73	128	113
137	104	17	64					133	108	13	68
37	44	157	84					33	48	153	88
144	97	24	57					148	93	28	53
3	78	123	118	10	71	130	111	9	72	129	112
138	103	18	63	131	110	11	70	132	109	12	69
38	43	158	83	31	50	151	90	32	49	152	89
143	98	23	58	150	91	30	51	149	92	29	52
2	79	122	119								
139	102	19	62								
39	42	159	82								
142	99	22	59								
1	80	121	120								
140	101	20	61								
40	41	160	81								
141	100	21	60								

5	100	161	152	6	99	162	151	7	98	163	150		
178	135	22	83	177	136	21	84	176	137	20	85		
48	57	204	109	47	58	203	110	46	59	202	111		
187	126	31	74	188	125	32	73	189	124	33	72		
4	101	160	153					8	97	164	149		
179	134	23	82					175	138	19	86		
49	56	205	108					45	60	201	112		
186	127	30	75					190	123	34	71		
3	102	159	154					9	96	165	148		
180	133	24	81					174	139	18	87		
50	55	206	107					44	61	200	113		
185	128	29	76					191	122	35	70		
2	103	158	155			10	95	166	147	13	92	169	144
181	132	25	80			173	140	17	88	170	143	14	91
51	54	207	106			43	62	199	114	40	65	196	117
184	129	28	77			192	121	36	69	195	118	39	66
1	104	157	156	12	93	168	145	11	94	167	146		
182	131	26	79	171	142	15	90	172	141	16	89		
52	53	208	105	41	64	197	116	42	63	198	115		
183	130	27	78	194	119	38	67	193	120	37	68		

- The letter "P" is formed by consecutive numbers from 1 to 160 resulting in 10 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 322$ as given in Example 6.6.

- The letter "Q" is formed by consecutive numbers from 1 to 208 resulting in 13 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 418$ as given in Example 6.9.

2.13 Letters R and S

Example 2.13. *Below are letters "R" and "S" written in terms of* ***pandiagonal*** *squares of order 4:*

5	92	149	140	6	91	150	139	7	90	151	138
164	125	20	77	163	126	19	78	162	127	18	79
44	53	188	101	43	54	187	102	42	55	186	103
173	116	29	68	174	115	30	67	175	114	31	66
4	93	148	141					8	89	152	137
165	124	21	76					161	128	17	80
45	52	189	100					41	56	185	104
172	117	28	69					176	113	32	65
3	94	147	142	10	87	154	135	9	88	153	136
166	123	22	75	159	130	15	82	160	129	16	81
46	51	190	99	39	58	183	106	40	57	184	105
171	118	27	70	178	111	34	63	177	112	33	64
2	95	146	143			11	86	155	134		
167	122	23	74			158	131	14	83		
47	50	191	98			38	59	182	107		
170	119	26	71			179	110	35	62		
1	96	145	144					12	85	156	133
168	121	24	73					157	132	13	84
48	49	192	97					37	60	181	108
169	120	25	72					180	109	36	61

9	80	141	124	10	79	142	123	11	78	143	122
146	119	14	75	145	120	13	76	144	121	12	77
36	53	168	97	35	54	167	98	34	55	166	99
163	102	31	58	164	101	32	57	165	100	33	56
8	81	140	125								
147	118	15	74								
37	52	169	96								
162	103	30	59								
7	82	139	126	6	83	138	127	5	84	137	128
148	117	16	73	149	116	17	72	150	115	18	71
38	51	170	95	39	50	171	94	40	49	172	93
161	104	29	60	160	105	28	61	159	106	27	62
								4	85	136	129
								151	114	19	70
								41	48	173	92
								158	107	26	63
1	88	133	132	2	87	134	131	3	86	135	130
154	111	22	67	153	112	21	68	152	113	20	69
44	45	176	89	43	46	175	90	42	47	174	91
155	110	23	66	156	109	24	65	157	108	25	64

- The letter "R" is formed by consecutive numbers from 1 to 192 resulting in 12 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 386$ as given in Example 6.8.
- The letter "S" is formed by consecutive numbers from 1 to 176 resulting in 11 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 354$ as given in Example 6.7.

2.14 Letters T and U

Example 2.14. *Below are letters "T" and "U" written in terms of* ***pandiagonal*** *squares of order 4:*

1	56	85	84	2	55	86	83	3	54	87	82
98	71	14	43	97	72	13	44	96	73	12	45
28	29	112	57	27	30	111	58	26	31	110	59
99	70	15	42	100	69	16	41	101	68	17	40
				4	53	88	81				
				95	74	11	46				
				25	32	109	60				
				102	67	18	39				
				5	52	89	80				
				94	75	10	47				
				24	33	108	61				
				103	66	19	38				
				6	51	90	79				
				93	76	9	48				
				23	34	107	62				
				104	65	20	37				
				7	50	91	78				
				92	77	8	49				
				22	35	106	63				
				105	64	21	36				

1	88	133	132					11	78	143	122
154	111	22	67					144	121	12	77
44	45	176	89					34	55	166	99
155	110	23	66					165	100	33	56
2	87	134	131					10	79	142	123
153	112	21	68					145	120	13	76
43	46	175	90					35	54	167	98
156	109	24	65					164	101	32	57
3	86	135	130					9	80	141	124
152	113	20	69					146	119	14	75
42	47	174	91					36	53	168	97
157	108	25	64					163	102	31	58
4	85	136	129					8	81	140	125
151	114	19	70					147	118	15	74
41	48	173	92					37	52	169	96
158	107	26	63					162	103	30	59
5	84	137	128	6	83	138	127	7	82	139	126
150	115	18	71	149	116	17	72	148	117	16	73
40	49	172	93	39	50	171	94	38	51	170	95
159	106	27	62	160	105	28	61	161	104	29	60

- The letter "T" is formed by consecutive numbers from 1 to 112 resulting in 7 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 226$ as given in Example 6.3.
- The letter "U" is formed by consecutive numbers from 1 to 176 resulting in 11 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 354$ as given in Example 6.7.

2.15 Letter V

Example 2.15. *Below is a letter "V" written in terms of* ***pandiagonal*** *squares of order 4:*

1	72	109	108							9	64	117	100
126	91	18	55							118	99	10	63
36	37	144	73							28	45	136	81
127	90	19	54							135	82	27	46
	2	71	110	107					8	65	116	101	
	125	92	17	56					119	98	11	62	
	35	38	143	74					29	44	137	80	
	128	89	20	53					134	83	26	47	
		3	70	111	106			7	66	115	102		
		124	93	16	57			120	97	12	61		
		34	39	142	75			30	43	138	79		
		129	88	21	52			133	84	25	48		
			4	69	112	105	6	67	114	103			
			123	94	15	58	121	96	13	60			
			33	40	141	76	31	42	139	78			
			130	87	22	51	132	85	24	49			
					5	68	113	104					
					122	95	14	59					
					32	41	140	77					
					131	86	23	50					

The letter "V" is formed by consecutive numbers from 1 to 144 resulting in 9 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 290$ as given in Example 6.5.

2.16 Letter W

Example 2.16. *Below, there are three different ways of writing letter "W" in terms of* ***pandiagonal*** *squares of order 4:*

1	104	157	156											13	92	169	144
182	131	26	79											170	143	14	91
52	53	208	105											40	65	196	117
183	130	27	78											195	118	39	66
2	103	158	155											12	93	168	145
181	132	25	80											171	142	15	90
51	54	207	106											41	64	197	116
184	129	28	77											194	119	38	67
3	102	159	154											11	94	167	146
180	133	24	81											172	141	16	89
50	55	206	107				7	98	163	150				42	63	198	115
185	128	29	76				176	137	20	85				193	120	37	68
4	101	160	153				46	59	202	111				10	95	166	147
179	134	23	82				189	124	33	72				173	140	17	88
49	56	205	108	6	99	162	151			8	97	164	149	43	62	199	114
186	127	30	75	177	136	21	84			175	138	19	86	192	121	36	69
5	100	161	152	47	58	203	110			45	60	201	112	9	96	165	148
178	135	22	83	188	125	32	73			190	123	34	71	174	139	18	87
48	57	204	109											44	61	200	113
187	126	31	74											191	122	35	70

1	120	181	180											15	106	195	166
210	151	30	91											196	165	16	105
60	61	240	121											46	75	226	135
211	150	31	90											225	136	45	76
2	119	182	179											14	107	194	167
209	152	29	92											197	164	17	104
59	62	239	122				9	112	189	172				47	74	227	134
212	149	32	89				202	159	22	99				224	137	44	77
3	118	183	178				52	69	232	129				13	108	193	168
208	153	28	93				219	142	39	82				198	163	18	103
58	63	238	123		7	114	187	174	8	113	188	173		48	73	228	133
213	148	33	88		204	157	24	97	203	158	23	98		223	138	43	78
4	117	184	177		54	67	234	127	53	68	233	128		12	109	192	169
207	154	27	94		217	144	37	84	218	143	38	83		199	162	19	102
57	64	237	124	6	115	186	175			10	111	190	171	49	72	229	132
214	147	34	87	205	156	25	96			201	160	21	100	222	139	42	79
5	116	185	176	55	66	235	126			51	70	231	130	11	110	191	170
206	155	26	95	216	145	36	85			220	141	40	81	200	161	20	101
56	65	236	125											50	71	230	131
215	146	35	86											221	140	41	80

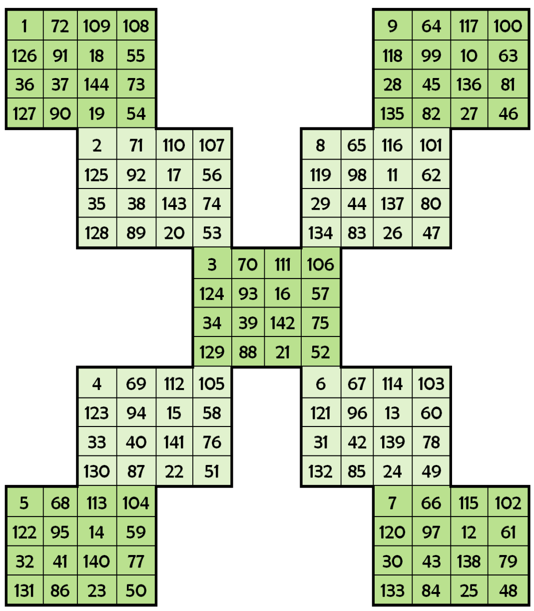
We have written the letter **"W"** in two different ways.

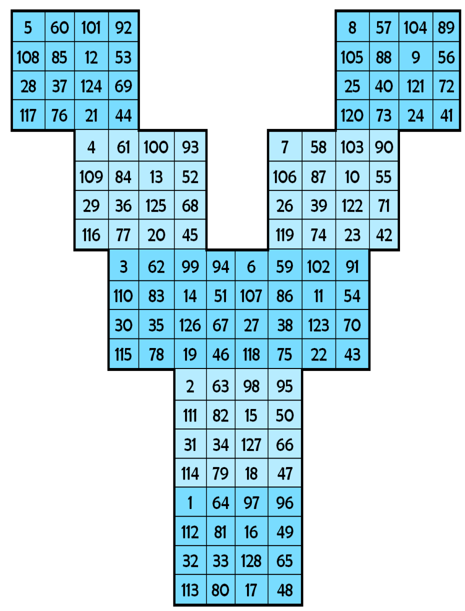
- The first letter **"W"** is with consecutive numbers from 1 to 208 resulting in 13 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 418$ as given in Example 6.9.

- The second letter **"W"** is formed by consecutive numbers from 1 to 240 resulting in 15 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 482$ as given in Example 6.11.

2.17 Letter X and Y

Example 2.17. *Below are letters "X" and "Y" written in terms of* ***pandiagonal*** *squares of order 4:*





- The letter "X" is formed by consecutive numbers from 1 to 144 resulting in 9 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 290$ as given in Example 6.5.

- The letter **"Y"** is formed by consecutive numbers from 1 to 128 resulting in 8 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 258$ as given in Example 6.4.

2.18 Letter Z

Example 2.18. *Below is a letter "Z" written in terms of* ***pandiagonal*** *squares of order 4:*

1	72	109	108	2	71	110	107	3	70	111	106
126	91	18	55	125	92	17	56	124	93	16	57
36	37	144	73	35	38	143	74	34	39	142	75
127	90	19	54	128	89	20	53	129	88	21	52
							4	69	112	105	
							123	94	15	58	
							33	40	141	76	
							130	87	22	51	
				5	68	113	104				
				122	95	14	59				
				32	41	140	77				
				131	86	23	50				
	6	67	114	103							
	121	96	13	60							
	31	42	139	78							
	132	85	24	49							
7	66	115	102	8	65	116	101	9	64	117	100
120	97	12	61	119	98	11	62	118	99	10	63
30	43	138	79	29	44	137	80	28	45	136	81
133	84	25	48	134	83	26	47	135	82	27	46

The letter **"Z"** is formed by consecutive numbers from 1 to 144 resulting in 9 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 290$ as given in Example 6.5.

3 Numbers With Blocks of Magic Squares of Order 4

In this section, we shall write numbers from 0 to 9 as equal sums blocks of magic squares of order 4. We used idea of numbers similar to one appears in elevators.

3.1 Numbers 0 and 1

Example 3.1. *Below are numbers "0" and "1" written in terms of* ***pandiagonal*** *squares of order 4:*

5	92	149	140	6	91	150	139	7	90	151	138
164	125	20	77	163	126	19	78	162	127	18	79
44	53	188	101	43	54	187	102	42	55	186	103
173	116	29	68	174	115	30	67	175	114	31	66
4	93	148	141					8	89	152	137
165	124	21	76					161	128	17	80
45	52	189	100					41	56	185	104
172	117	28	69					176	113	32	65
3	94	147	142					9	88	153	136
166	123	22	75					160	129	16	81
46	51	190	99					40	57	184	105
171	118	27	70					177	112	33	64
2	95	146	143					10	87	154	135
167	122	23	74					159	130	15	82
47	50	191	98					39	58	183	106
170	119	26	71					178	111	34	63
1	96	145	144	12	85	156	133	11	86	155	134
168	121	24	73	157	132	13	84	158	131	14	83
48	49	192	97	37	60	181	108	38	59	182	107
169	120	25	72	180	109	36	61	179	110	35	62

5	36	65	56
66	55	6	35
16	25	76	45
75	46	15	26
4	37	64	57
67	54	7	34
17	24	77	44
74	47	14	27
3	38	63	58
68	53	8	33
18	23	78	43
73	48	13	28
2	39	62	59
69	52	9	32
19	22	79	42
72	49	12	29
1	40	61	60
70	51	10	31
20	21	80	41
71	50	11	30

- The number **"0"** is formed by consecutive numbers from 1 to 192 resulting in 12 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 386$ as given in Example 6.8.
- The number **"1"** is formed by consecutive numbers from 1 to 80 resulting in 5 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 162$ as given in Example 6.1.

3.2 Number 2

Example 3.2. *Below is a number "2" written two different ways in terms of* ***pandiagonal*** *squares of order 4:*

8	57	104	89	7	58	103	90
105	88	9	56	106	87	10	55
25	40	121	72	26	39	122	71
120	73	24	41	119	74	23	42
				6	59	102	91
				107	86	11	54
				27	38	123	70
				118	75	22	43
5	60	101	92	4	61	100	93
108	85	12	53	109	84	13	52
28	37	124	69	29	36	125	68
117	76	21	44	116	77	20	45
3	62	99	94				
110	83	14	51				
30	35	126	67				
115	78	19	46				
2	63	98	95	1	64	97	96
111	82	15	50	112	81	16	49
31	34	127	66	32	33	128	65
114	79	18	47	113	80	17	48

11	78	143	122	10	79	142	123	9	80	141	124
144	121	12	77	145	120	13	76	146	119	14	75
34	55	166	99	35	54	167	98	36	53	168	97
165	100	33	56	164	101	32	57	163	102	31	58
								8	81	140	125
								147	118	15	74
								37	52	169	96
								162	103	30	59
5	84	137	128	6	83	138	127	7	82	139	126
150	115	18	71	149	116	17	72	148	117	16	73
40	49	172	93	39	50	171	94	38	51	170	95
159	106	27	62	160	105	28	61	161	104	29	60
4	85	136	129								
151	114	19	70								
41	48	173	92								
158	107	26	63								
3	86	135	130	2	87	134	131	1	88	133	132
152	113	20	69	153	112	21	68	154	111	22	67
42	47	174	91	43	46	175	90	44	45	176	89
157	108	25	64	156	109	24	65	155	110	23	66

- The first number "2" is formed by consecutive numbers from 1 to 128 resulting in 8 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 258$ as given in Example 6.4.
- The second number "2" is formed by consecutive numbers from 1 to 176 resulting in 11 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 354$ as given in Example 6.7.

3.3 Number 3

Example 3.3. *Below is a number "3" written in two different ways in terms of* ***pandiagonal*** *squares of order 4:*

8	57	104	89	7	58	103	90
105	88	9	56	106	87	10	55
25	40	121	72	26	39	122	71
120	73	24	41	119	74	23	42
				6	59	102	91
				107	86	11	54
				27	38	123	70
				118	75	22	43
5	60	101	92	4	61	100	93
108	85	12	53	109	84	13	52
28	37	124	69	29	36	125	68
117	76	21	44	116	77	20	45
				3	62	99	94
				110	83	14	51
				30	35	126	67
				115	78	19	46
1	64	97	96	2	63	98	95
112	81	16	49	111	82	15	50
32	33	128	65	31	34	127	66
113	80	17	48	114	79	18	47

11	78	143	122	10	79	142	123	9	80	141	124
144	121	12	77	145	120	13	76	146	119	14	75
34	55	166	99	35	54	167	98	36	53	168	97
165	100	33	56	164	101	32	57	163	102	31	58
								8	81	140	125
								147	118	15	74
								37	52	169	96
								162	103	30	59
7	82	139	126	6	83	138	127	5	84	137	128
148	117	16	73	149	116	17	72	150	115	18	71
38	51	170	95	39	50	171	94	40	49	172	93
161	104	29	60	160	105	28	61	159	106	27	62
								4	85	136	129
								151	114	19	70
								41	48	173	92
								158	107	26	63
1	88	133	132	2	87	134	131	3	86	135	130
154	111	22	67	153	112	21	68	152	113	20	69
44	45	176	89	43	46	175	90	42	47	174	91
155	110	23	66	156	109	24	65	157	108	25	64

- The first number **"3"** is formed by consecutive numbers from 1 to 128 resulting in 8 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 258$ as given in Example 6.4.
- The second number **"3"** is formed by consecutive numbers from 1 to 176 resulting in 11 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 354$ as given in Example 6.7.

3.4 Number 4

Example 3.4. *Below is a number "4" written in terms of **pandiagonal** squares of order 4:*

6	67	114	103					5	68	113	104
121	96	13	60					122	95	14	59
31	42	139	78					32	41	140	77
132	85	24	49					131	86	23	50
7	66	115	102					4	69	112	105
120	97	12	61					123	94	15	58
30	43	138	79					33	40	141	76
133	84	25	48					130	87	22	51
8	65	116	101	9	64	117	100	3	70	111	106
119	98	11	62	118	99	10	63	124	93	16	57
29	44	137	80	28	45	136	81	34	39	142	75
134	83	26	47	135	82	27	46	129	88	21	52
								2	71	110	107
								125	92	17	56
								35	38	143	74
								128	89	20	53
								1	72	109	108
								126	91	18	55
								36	37	144	73
								127	90	19	54

The first number **"4"** is formed by consecutive numbers from 1 to 144 resulting in 9 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 290$ as given in Example 6.5

3.5 Number 5

Example 3.5. *Below is a number "5" written in two different ways in terms of **pandiagonal** squares of order 4:*

7	58	103	90	8	57	104	89
106	87	10	55	105	88	9	56
26	39	122	71	25	40	121	72
119	74	23	42	120	73	24	41
6	59	102	91				
107	86	11	54				
27	38	123	70				
118	75	22	43				
5	60	101	92	4	61	100	93
108	85	12	53	109	84	13	52
28	37	124	69	29	36	125	68
117	76	21	44	116	77	20	45
				3	62	99	94
				110	83	14	51
				30	35	126	67
				115	78	19	46
1	64	97	96	2	63	98	95
112	81	16	49	111	82	15	50
32	33	128	65	31	34	127	66
113	80	17	48	114	79	18	47

9	80	141	124	10	79	142	123	11	78	143	122
146	119	14	75	145	120	13	76	144	121	12	77
36	53	168	97	35	54	167	98	34	55	166	99
163	102	31	58	164	101	32	57	165	100	33	56
8	81	140	125								
147	118	15	74								
37	52	169	96								
162	103	30	59								
7	82	139	126	6	83	138	127	5	84	137	128
148	117	16	73	149	116	17	72	150	115	18	71
38	51	170	95	39	50	171	94	40	49	172	93
161	104	29	60	160	105	28	61	159	106	27	62
								4	85	136	129
								151	114	19	70
								41	48	173	92
								158	107	26	63
1	88	133	132	2	87	134	131	3	86	135	130
154	111	22	67	153	112	21	68	152	113	20	69
44	45	176	89	43	46	175	90	42	47	174	91
155	110	23	66	156	109	24	65	157	108	25	64

- The first number "5" is formed by consecutive numbers from 1 to 128 resulting in 8 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 258$ as given in Example 6.4.
- The second number "5" is formed by consecutive numbers from 1 to 176 resulting in 11 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 354$ as given in Example 6.7.

3.6 Number 6 and 7

Example 3.6. *Below are numbers "6" and "7" written in terms of **pandiagonal** squares of order 4:*

10	87	154	135	11	86	155	134	12	85	156	133
159	130	15	82	158	131	14	83	157	132	13	84
39	58	183	106	38	59	182	107	37	60	181	108
178	111	34	63	179	110	35	62	180	109	36	61
9	88	153	136								
160	129	16	81								
40	57	184	105								
177	112	33	64								
8	89	152	137	1	96	145	144	2	95	146	143
161	128	17	80	168	121	24	73	167	122	23	74
41	56	185	104	48	49	192	97	47	50	191	98
176	113	32	65	169	120	25	72	170	119	26	71
7	90	151	138					3	94	147	142
162	127	18	79					166	123	22	75
42	55	186	103					46	51	190	99
175	114	31	66					171	118	27	70
6	91	150	139	5	92	149	140	4	93	148	141
163	126	19	78	164	125	20	77	165	124	21	76
43	54	187	102	44	53	188	101	45	52	189	100
174	115	30	67	173	116	29	68	172	117	28	69

7	50	91	78	6	51	90	79	5	52	89	80
92	77	8	49	93	76	9	48	94	75	10	47
22	35	106	63	23	34	107	62	24	33	108	61
105	64	21	36	104	65	20	37	103	66	19	38
								4	53	88	81
								95	74	11	46
								25	32	109	60
								102	67	18	39
								3	54	87	82
								96	73	12	45
								26	31	110	59
								101	68	17	40
								2	55	86	83
								97	72	13	44
								27	30	111	58
								100	69	16	41
								1	56	85	84
								98	71	14	43
								28	29	112	57
								99	70	15	42

- The letter "**6**" is formed by consecutive numbers from 1 to 192 resulting in 12 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 386$ as given in Example 6.8.
- The letter "**7**" is formed by consecutive numbers from 1 to 112 resulting in 7 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times 4} := 226$ as given in Example 6.3.

3.7 Numbers 8 and 9

Example 3.7. *Below are numbers "8" and "9" written in terms of **pandiagonal** squares of order 4:*

5	100	161	152	6	99	162	151	7	98	163	150
178	135	22	83	177	136	21	84	176	137	20	85
48	57	204	109	47	58	203	110	46	59	202	111
187	126	31	74	188	125	32	73	189	124	33	72
4	101	160	153					8	97	164	149
179	134	23	82					175	138	19	86
49	56	205	108					45	60	201	112
186	127	30	75					190	123	34	71
3	102	159	154	10	95	166	147	9	96	165	148
180	133	24	81	173	140	17	88	174	139	18	87
50	55	206	107	43	62	199	114	44	61	200	113
185	128	29	76	192	121	36	69	191	122	35	70
2	103	158	155					11	94	167	146
181	132	25	80					172	141	16	89
51	54	207	106					42	63	198	115
184	129	28	77					193	120	37	68
1	104	157	156	13	92	169	144	12	93	168	145
182	131	26	79	170	143	14	91	171	142	15	90
52	53	208	105	40	65	196	117	41	64	197	116
183	130	27	78	195	118	39	66	194	119	38	67

4	93	148	141	5	92	149	140	6	91	150	139
165	124	21	76	164	125	20	77	163	126	19	78
45	52	189	100	44	53	188	101	43	54	187	102
172	117	28	69	173	116	29	68	174	115	30	67
3	94	147	142					7	90	151	138
166	123	22	75					162	127	18	79
46	51	190	99					42	55	186	103
171	118	27	70					175	114	31	66
2	95	146	143	1	96	145	144	8	89	152	137
167	122	23	74	168	121	24	73	161	128	17	80
47	50	191	98	48	49	192	97	41	56	185	104
170	119	26	71	169	120	25	72	176	113	32	65
								9	88	153	136
								160	129	16	81
								40	57	184	105
								177	112	33	64
12	85	156	133	11	86	155	134	10	87	154	135
157	132	13	84	158	131	14	83	159	130	15	82
37	60	181	108	38	59	182	107	39	58	183	106
180	109	36	61	179	110	35	62	178	111	34	63

- The letter "8" is formed by consecutive numbers from 1 to 208 resulting in 13 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 418$ as given in Example 6.9.
- The letter "9" is formed by consecutive numbers from 1 to 192 resulting in 12 **pandiagonal** squares of order 4 with equal magic sums $S_{4\times4} := 386$ as given in Example 6.8.

4 Letters With Blocks of Magic Square of Order 6

4.1 Letters A and B

Example 4.1. *Below are letters "A" and "B" written in terms of magic squares of order 6:*

						5	345	336	325	16	56						
						296	76	276	85	105	245						
						236	225	145	156	196	125						
						176	136	205	216	165	185						
						65	256	96	265	285	116						
						305	45	25	36	316	356						
		4	344	337	324	17	57			6	346	335	326	15	55		
		297	77	277	84	104	244			295	75	275	86	106	246		
		237	224	144	157	197	124			235	226	146	155	195	126		
		177	137	204	217	164	184			175	135	206	215	166	186		
		64	257	97	264	284	117			66	255	95	266	286	115		
		304	44	24	37	317	357			306	46	26	35	315	355		
3	343	338	323	18	58							7	347	334	327	14	54
298	78	278	83	103	243							294	74	274	87	107	247
238	223	143	158	198	123							234	227	147	154	194	127
178	138	203	218	163	183							174	134	207	214	167	187
63	258	98	263	283	118							67	254	94	267	287	114
303	43	23	38	318	358							307	47	27	34	314	354
2	342	339	322	19	59	10	350	331	330	11	51	8	348	333	328	13	53
299	79	279	82	102	242	291	71	271	90	110	250	293	73	273	88	108	248
239	222	142	159	199	122	231	230	150	151	191	130	233	228	148	153	193	128
179	139	202	219	162	182	171	131	210	211	170	190	173	133	208	213	168	188
62	259	99	262	282	119	70	251	91	270	290	111	68	253	93	268	288	113
302	42	22	39	319	359	310	50	30	31	311	351	308	48	28	33	313	353
1	341	340	321	20	60							9	349	332	329	12	52
300	80	280	81	101	241							292	72	272	89	109	249
240	221	141	160	200	121							232	229	149	152	192	129
180	140	201	220	161	181							172	132	209	212	169	189
61	260	100	261	281	120							69	252	92	269	289	112
301	41	21	40	320	360							309	49	29	32	312	352

5	413	404	389	20	68	6	414	403	390	19	67						
356	92	332	101	125	293	355	91	331	102	126	294						
284	269	173	188	236	149	283	270	174	187	235	150						
212	164	245	260	197	221	211	163	246	259	198	222						
77	308	116	317	341	140	78	307	115	318	342	139						
365	53	29	44	380	428	366	54	30	43	379	427						
4	412	405	388	21	69				7	415	402	391	18	66			
357	93	333	100	124	292				354	90	330	103	127	295			
285	268	172	189	237	148				282	271	175	186	234	151			
213	165	244	261	196	220				210	162	247	258	199	223			
76	309	117	316	340	141				79	306	114	319	343	138			
364	52	28	45	381	429				367	55	31	42	378	426			
3	411	406	387	22	70	8	416	401	392	17	65	9	417	400	393	16	64
358	94	334	99	123	291	353	89	329	104	128	296	352	88	328	105	129	297
286	267	171	190	238	147	281	272	176	185	233	152	280	273	177	184	232	153
214	166	243	262	195	219	209	161	248	257	200	224	208	160	249	256	201	225
75	310	118	315	339	142	80	305	113	320	344	137	81	304	112	321	345	136
363	51	27	46	382	430	368	56	32	41	377	425	369	57	33	40	376	424
2	410	407	386	23	71							10	418	399	394	15	63
359	95	335	98	122	290							351	87	327	106	130	298
287	266	170	191	239	146							279	274	178	183	231	154
215	167	242	263	194	218							207	159	250	255	202	226
74	311	119	314	338	143							82	303	111	322	346	135
362	50	26	47	383	431							370	58	34	39	375	423
1	409	408	385	24	72	12	420	397	396	13	61	11	419	398	395	14	62
360	96	336	97	121	289	349	85	325	108	132	300	350	86	326	107	131	299
288	265	169	192	240	145	277	276	180	181	229	156	278	275	179	182	230	155
216	168	241	264	193	217	205	157	252	253	204	228	206	158	251	254	203	227
73	312	120	313	337	144	84	301	109	324	348	133	83	302	110	323	347	134
361	49	25	48	384	432	372	60	36	37	373	421	371	59	35	38	374	422

- The first letter "A" is compose of 10 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 360 as given in Example 7.6. The magic sums of each block is $S_{6\times 6} := 1083$.

- The second letter "B" is compose of 12 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 432 as given in Example 7.8. The magic sums of each block is $S_{6\times 6} := 1299$.

4.2 Letters C and D

Example 4.2. *Below are letters "C" and "D" written in terms of magic squares of order 6:*

8	382	367	360	15	59	9	383	366	361	14	58	10	384	365	362	13	57
323	81	301	96	118	272	322	80	300	97	119	273	321	79	299	98	120	274
257	250	162	169	213	140	256	251	163	168	212	141	255	252	164	167	211	142
191	147	228	235	184	206	190	146	229	234	185	207	189	145	230	233	186	208
74	279	103	294	316	125	75	278	102	295	317	124	76	277	101	296	318	123
338	52	30	37	345	389	339	53	31	36	344	388	340	54	32	35	343	387
7	381	368	359	16	60							11	385	364	363	12	56
324	82	302	95	117	271							320	78	298	99	121	275
258	249	161	170	214	139							254	253	165	166	210	143
192	148	227	236	183	205							188	144	231	232	187	209
73	280	104	293	315	126							77	276	100	297	319	122
337	51	29	38	346	390							341	55	33	34	342	386
6	380	369	358	17	61												
325	83	303	94	116	270												
259	248	160	171	215	138												
193	149	226	237	182	204												
72	281	105	292	314	127												
336	50	28	39	347	391												
5	379	370	357	18	62							1	375	374	353	22	66
326	84	304	93	115	269							330	88	308	89	111	265
260	247	159	172	216	137							264	243	155	176	220	133

5	345	336	325	16	56	6	346	335	326	15	55				
296	76	276	85	105	245	295	75	275	86	106	246				
236	225	145	156	196	125	235	226	146	155	195	126				
176	136	205	216	165	185	175	135	206	215	166	186				
65	256	96	265	285	116	66	255	95	266	286	115				
305	45	25	36	316	356	306	46	26	35	315	355				
4	344	337	324	17	57				7	347	334	327	14	54	
297	77	277	84	104	244				294	74	274	87	107	247	
237	224	144	157	197	124				234	227	147	154	194	127	
177	137	204	217	164	184				174	134	207	214	167	187	
64	257	97	264	284	117				67	254	94	267	287	114	
304	44	24	37	317	357				307	47	27	34	314	354	
3	343	338	323	18	58					8	348	333	328	13	53
298	78	278	83	103	243					293	73	273	88	108	248
238	223	143	158	198	123					233	228	148	153	193	128
178	138	203	218	163	183					173	133	208	213	168	188
63	258	98	263	283	118					68	253	93	268	288	113
303	43	23	38	318	358					308	48	28	33	313	353
2	342	339	322	19	59				9	349	332	329	12	52	
299	79	279	82	102	242				292	72	272	89	109	249	
239	222	142	159	199	122				232	229	149	152	192	129	
179	139	202	219	162	182				172	132	209	212	169	189	
62	259	99	262	282	119				69	252	92	269	289	112	
302	42	22	39	319	359				309	49	29	32	312	352	
1	341	340	321	20	60	10	350	331	330	11	51				
300	80	280	81	101	241	291	71	271	90	110	250				
240	221	141	160	200	121	231	230	150	151	191	130				
180	140	201	220	161	181	171	131	210	211	170	190				
61	260	100	261	281	120	70	251	91	270	290	111				
301	41	21	40	320	360	310	50	30	31	311	351				

- The first letter **"C"** is compose of 11 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 396 as given in Example 7.7. The magic sums of each block is $S_{6\times 6} := 1191$.
- The second letter **"D"** is compose of 10 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 360 as given in Example 7.6. The magic sums of each block is $S_{6\times 6} := 1083$.

4.3 Letters E and F

Example 4.3. *Below are letters "E" and "F" written in terms of magic squares of order 6:*

8	348	333	328	13	53	9	349	332	329	12	52	10	350	331	330	11	51
293	73	273	88	108	248	292	72	272	89	109	249	291	71	271	90	110	250
233	228	148	153	193	128	232	229	149	152	192	129	231	230	150	151	191	130
173	133	208	213	168	188	172	132	209	212	169	189	171	131	210	211	170	190
68	253	93	268	288	113	69	252	92	269	289	112	70	251	91	270	290	111
308	48	28	33	313	353	309	49	29	32	312	352	310	50	30	31	311	351
7	347	334	327	14	54												
294	74	274	87	107	247												
234	227	147	154	194	127												
174	134	207	214	167	187												
67	254	94	267	287	114												
307	47	27	34	314	354												
5	345	336	325	16	56	6	346	335	326	15	55						
296	76	276	85	105	245	295	75	275	86	106	246						
236	225	145	156	196	125	235	226	146	155	195	126						
176	136	205	216	165	185	175	135	206	215	166	186						
65	256	96	265	285	116	66	255	95	266	286	115						
305	45	25	36	316	356	306	46	26	35	315	355						
4	344	337	324	17	57												
297	77	277	84	104	244												
237	224	144	157	197	124												
177	137	204	217	164	184												
64	257	97	264	284	117												
304	44	24	37	317	357												
3	343	338	323	18	58	2	342	339	322	19	59	1	341	340	321	20	60
298	78	278	83	103	243	299	79	279	82	102	242	300	80	280	81	101	241
238	223	143	158	198	123	239	222	142	159	199	122	240	221	141	160	200	121
178	138	203	218	163	183	179	139	202	219	162	182	180	140	201	220	161	181
63	258	98	263	283	118	62	259	99	262	282	119	61	260	100	261	281	120
303	43	23	38	318	358	302	42	22	39	319	359	301	41	21	40	320	360

6	278	267	262	11	43	7	279	266	263	10	42	8	280	265	264	9	41
235	59	219	70	86	198	234	58	218	71	87	199	233	57	217	72	88	200
187	182	118	123	155	102	186	183	119	122	154	103	185	184	120	121	153	104
139	107	166	171	134	150	138	106	167	170	135	151	137	105	168	169	136	152
54	203	75	214	230	91	55	202	74	215	231	90	56	201	73	216	232	89
246	38	22	27	251	283	247	39	23	26	250	282	248	40	24	25	249	281
5	277	268	261	12	44												
236	60	220	69	85	197												
188	181	117	124	156	101												
140	108	165	172	133	149												
53	204	76	213	229	92												
245	37	21	28	252	284												
3	275	270	259	14	46	4	276	269	260	13	45						
238	62	222	67	83	195	237	61	221	68	84	196						
190	179	115	126	158	99	189	180	116	125	157	100						
142	110	163	174	131	147	141	109	164	173	132	148						
51	206	78	211	227	94	52	205	77	212	228	93						
243	35	19	30	254	286	244	36	20	29	253	285						
2	274	271	258	15	47												
239	63	223	66	82	194												
191	178	114	127	159	98												
143	111	162	175	130	146												
50	207	79	210	226	95												
242	34	18	31	255	287												
1	273	272	257	16	48												
240	64	224	65	81	193												
192	177	113	128	160	97												
144	112	161	176	129	145												
49	208	80	209	225	96												
241	33	17	32	256	288												

- The letter "**E**" is compose of 10 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 360 as given in Example 7.6. The magic sums of each block is $S_{6\times 6} := 1083$.
- The letter "**F**" is compose of 8 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 288 as given in Example 7.4. The magic sums of each block is $S_{6\times 6} := 867$.

4.4 Letters G and H

Example 4.4. *Below are letters "G" and "H" written in two different ways in terms of magic squares of order 6:*

8	348	333	328	13	53	9	349	332	329	12	52	10	350	331	330	11	51
293	73	273	88	108	248	292	72	272	89	109	249	291	71	271	90	110	250
233	228	148	153	193	128	232	229	149	152	192	129	231	230	150	151	191	130
173	133	208	213	168	188	172	132	209	212	169	189	171	131	210	211	170	190
68	253	93	268	288	113	69	252	92	269	289	112	70	251	91	270	290	111
308	48	28	33	313	353	309	49	29	32	312	352	310	50	30	31	311	351
7	347	334	327	14	54												
294	74	274	87	107	247												
234	227	147	154	194	127												
174	134	207	214	167	187												
67	254	94	267	287	114												
307	47	27	34	314	354												
6	346	335	326	15	55												
295	75	275	86	106	246												
235	226	146	155	195	126												
175	135	206	215	166	186												
66	255	95	266	286	115												
306	46	26	35	315	355												
5	345	336	325	16	56							1	341	340	321	20	60
296	76	276	85	105	245							300	80	280	81	101	241
236	225	145	156	196	125							240	221	141	160	200	121
176	136	205	216	165	185							180	140	201	220	161	181
65	256	96	265	285	116							61	260	100	261	281	120
305	45	25	36	316	356							301	41	21	40	320	360
4	344	337	324	17	57	3	343	338	323	18	58	2	342	339	322	19	59
297	77	277	84	104	244	298	78	278	83	103	243	299	79	279	82	102	242
237	224	144	157	197	124	238	223	143	158	198	123	239	222	142	159	199	122
177	137	204	217	164	184	178	138	203	218	163	183	179	139	202	219	162	182
64	257	97	264	284	117	63	258	98	263	283	118	62	259	99	262	282	119
304	44	24	37	317	357	303	43	23	38	318	358	302	42	22	39	319	359

5	379	370	357	18	62							7	381	368	359	16	60
326	84	304	93	115	269							324	82	302	95	117	271
260	247	159	172	216	137							258	249	161	170	214	139
194	150	225	238	181	203							192	148	227	236	183	205
71	282	106	291	313	128							73	280	104	293	315	126
335	49	27	40	348	392							337	51	29	38	346	390
4	378	371	356	19	63							8	382	367	360	15	59
327	85	305	92	114	268							323	81	301	96	118	272
261	246	158	173	217	136							257	250	162	169	213	140
195	151	224	239	180	202							191	147	228	235	184	206
70	283	107	290	312	129							74	279	103	294	316	125
334	48	26	41	349	393							338	52	30	37	345	389
3	377	372	355	20	64	6	380	369	358	17	61	9	383	366	361	14	58
328	86	306	91	113	267	325	83	303	94	116	270	322	80	300	97	119	273
262	245	157	174	218	135	259	248	160	171	215	138	256	251	163	168	212	141
196	152	223	240	179	201	193	149	226	237	182	204	190	146	229	234	185	207
69	284	108	289	311	130	72	281	105	292	314	127	75	278	102	295	317	124
333	47	25	42	350	394	336	50	28	39	347	391	339	53	31	36	344	388
2	376	373	354	21	65							10	384	365	362	13	57
329	87	307	90	112	266							321	79	299	98	120	274
263	244	156	175	219	134							255	252	164	167	211	142
197	153	222	241	178	200							189	145	230	233	186	208
68	285	109	288	310	131							76	277	101	296	318	123
332	46	24	43	351	395							340	54	32	35	343	387
1	375	374	353	22	66							11	385	364	363	12	56
330	88	308	89	111	265							320	78	298	99	121	275
264	243	155	176	220	133							254	253	165	166	210	143
198	154	221	242	177	199							188	144	231	232	187	209
67	286	110	287	309	132							77	276	100	297	319	122
331	45	23	44	352	396							341	55	33	34	342	386

- The second letter "G" is compose of 10 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 360 as given in Example 7.6. The magic sums of each block is $S_{6\times 6} := 1083$.
- The letter "H" is compose of 11 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 396 as given in Example 7.7. The magic sums of each block is $S_{6\times 6} := 1191$.

4.5 Letters I and J

Example 4.5. *Below are letters "I" and "J" written in terms of magic squares of order 6:*

6	244	233	230	9	37	7	245	232	231	8	36
205	51	191	62	76	174	204	50	190	63	77	175
163	160	104	107	135	90	162	161	105	106	134	91
121	93	146	149	118	132	120	92	147	148	119	133
48	177	65	188	202	79	49	176	64	189	203	78
216	34	20	23	219	247	217	35	21	22	218	246
			5	243	234	229	10	38			
			206	52	192	61	75	173			
			164	159	103	108	136	89			
			122	94	145	150	117	131			
			47	178	66	187	201	80			
			215	33	19	24	220	248			
			4	242	235	228	11	39			
			207	53	193	60	74	172			
			165	158	102	109	137	88			
			123	95	144	151	116	130			
			46	179	67	186	200	81			
			214	32	18	25	221	249			
			3	241	236	227	12	40			
			208	54	194	59	73	171			
			166	157	101	110	138	87			
			124	96	143	152	115	129			
			45	180	68	185	199	82			
			213	31	17	26	222	250			
1	239	238	225	14	42	2	240	237	226	13	41
210	56	196	57	71	169	209	55	195	58	72	170
168	155	99	112	140	85	167	156	100	111	139	86
126	98	141	154	113	127	125	97	142	153	114	128
43	182	70	183	197	84	44	181	69	184	198	83
211	29	15	28	224	252	212	30	16	27	223	251

												8	280	265	264	9	41
												233	57	217	72	88	200
												185	184	120	121	153	104
												137	105	168	169	136	152
												56	201	73	216	232	89
												248	40	24	25	249	281
												7	279	266	263	10	42
												234	58	218	71	87	199
												186	183	119	122	154	103
												138	106	167	170	135	151
												55	202	74	215	231	90
												247	39	23	26	250	282
												6	278	267	262	11	43
												235	59	219	70	86	198
												187	182	118	123	155	102
												139	107	166	171	134	150
												54	203	75	214	230	91
												246	38	22	27	251	283
1	273	272	257	16	48							5	277	268	261	12	44
240	64	224	65	81	193							236	60	220	69	85	197
192	177	113	128	160	97							188	181	117	124	156	101
144	112	161	176	129	145							140	108	165	172	133	149
49	208	80	209	225	96							53	204	76	213	229	92
241	33	17	32	256	288							245	37	21	28	252	284
2	274	271	258	15	47	3	275	270	259	14	46	4	276	269	260	13	45
239	63	223	66	82	194	238	62	222	67	83	195	237	61	221	68	84	196
191	178	114	127	159	98	190	179	115	126	158	99	189	180	116	125	157	100
143	111	162	175	130	146	142	110	163	174	131	147	141	109	164	173	132	148
50	207	79	210	226	95	51	206	78	211	227	94	52	205	77	212	228	93
242	34	18	31	255	287	243	35	19	30	254	286	244	36	20	29	253	285

- The letter **"I"** is compose of 7 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 252 as given in Example 7.3. The magic sums of each block is $S_{6\times 6} := 759$.
- The letter **"J"** is compose of 8 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 288 as given in Example 7.4. The magic sums of each block is $S_{6\times 6} := 867$.

4.6 Letters K and L

Example 4.6. *Below are letters "K" and "L" written in terms of magic squares of order 6:*

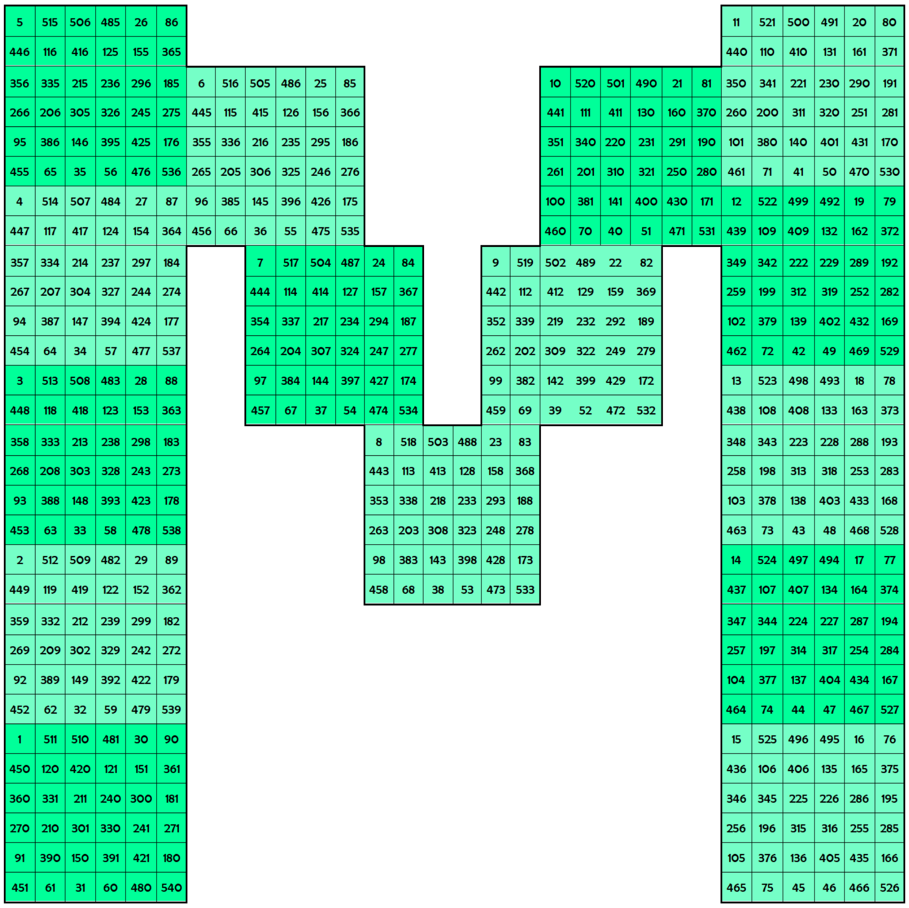
5	345	336	325	16	56							6	346	335	326	15	55
296	76	276	85	105	245							295	75	275	86	106	246
236	225	145	156	196	125							235	226	146	155	195	126
176	136	205	216	165	185							175	135	206	215	166	186
65	256	96	265	285	116							66	255	95	266	286	115
305	45	25	36	316	356							306	46	26	35	315	355
4	344	337	324	17	57				7	347	334	327	14	54			
297	77	277	84	104	244				294	74	274	87	107	247			
237	224	144	157	197	124				234	227	147	154	194	127			
177	137	204	217	164	184				174	134	207	214	167	187			
64	257	97	264	284	117				67	254	94	267	287	114			
304	44	24	37	317	357				307	47	27	34	314	354			
3	343	338	323	18	58	8	348	333	328	13	53						
298	78	278	83	103	243	293	73	273	88	108	248						
238	223	143	158	198	123	233	228	148	153	193	128						
178	138	203	218	163	183	173	133	208	213	168	188						
63	258	98	263	283	118	68	253	93	268	288	113						
303	43	23	38	318	358	308	48	28	33	313	353						
2	342	339	322	19	59				9	349	332	329	12	52			
299	79	279	82	102	242				292	72	272	89	109	249			
239	222	142	159	199	122				232	229	149	152	192	129			
179	139	202	219	162	182				172	132	209	212	169	189			
62	259	99	262	282	119				69	252	92	269	289	112			
302	42	22	39	319	359				309	49	29	32	312	352			
1	341	340	321	20	60							10	350	331	330	11	51
300	80	280	81	101	241							291	71	271	90	110	250
240	221	141	160	200	121							231	230	150	151	191	130
180	140	201	220	161	181							171	131	210	211	170	190
61	260	100	261	281	120							70	251	91	270	290	111
301	41	21	40	320	360							310	50	30	31	311	351

7	245	232	231	8	36												
204	50	190	63	77	175												
162	161	105	106	134	91												
120	92	147	148	119	133												
49	176	64	189	203	78												
217	35	21	22	218	246												
6	244	233	230	9	37												
205	51	191	62	76	174												
163	160	104	107	135	90												
121	93	146	149	118	132												
48	177	65	188	202	79												
216	34	20	23	219	247												
5	243	234	229	10	38												
206	52	192	61	75	173												
164	159	103	108	136	89												
122	94	145	150	117	131												
47	178	66	187	201	80												
215	33	19	24	220	248												
4	242	235	228	11	39												
207	53	193	60	74	172												
165	158	102	109	137	88												
123	95	144	151	116	130												
46	179	67	186	200	81												
214	32	18	25	221	249												
3	241	236	227	12	40	2	240	237	226	13	41	1	239	238	225	14	42
208	54	194	59	73	171	209	55	195	58	72	170	210	56	196	57	71	169
166	157	101	110	138	87	167	156	100	111	139	86	168	155	99	112	140	85
124	96	143	152	115	129	125	97	142	153	114	128	126	98	141	154	113	127
45	180	68	185	199	82	44	181	69	184	198	83	43	182	70	183	197	84
213	31	17	26	222	250	212	30	16	27	223	251	211	29	15	28	224	252

- The letter "K" is compose of 10 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 360 as given in Example 7.6. The magic sums of each block is $S_{6\times 6} := 1083$.
- The letter "L" is compose of 7 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 252 as given in Example 7.3. The magic sums of each block is $S_{6\times 6} := 759$.

4.7 Letter M

Example 4.7. *Below is a letter "M" written in terms of magic squares of order 6:*



- The letter "M" is compose of 15 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 540 as given in Example 7.11. The magic sums of each block is $S_{6\times 6} := 1623$.

4.8 Letters N and O

Example 4.8. *Below are letters "N" and "O" written in terms of magic squares of order 6:*

5	447	438	421	22	74											9	451	434	425	18	70
386	100	360	109	135	317											382	96	356	113	139	321
308	291	187	204	256	161											304	295	191	200	252	165
230	178	265	282	213	239	6	448	437	422	21	73					226	174	269	278	217	243
83	334	126	343	369	152	385	99	359	110	136	318					87	330	122	347	373	148
395	57	31	48	412	464	307	292	188	203	255	162					399	61	35	44	408	460
4	446	439	420	23	75	229	177	266	281	214	240					10	452	433	426	17	69
387	101	361	108	134	316	84	333	125	344	370	151					381	95	355	114	140	322
309	290	186	205	257	160	396	58	32	47	411	463					303	296	192	199	251	166
231	179	264	283	212	238			7	449	436	423	20	72			225	173	270	277	218	244
82	335	127	342	368	153			384	98	358	111	137	319			88	329	121	348	374	147
394	56	30	49	413	465			306	293	189	202	254	163			400	62	36	43	407	459
3	445	440	419	24	76			228	176	267	280	215	241			11	453	432	427	16	68
388	102	362	107	133	315			85	332	124	345	371	150			380	94	354	115	141	323
310	289	185	206	258	159			397	59	33	46	410	462			302	297	193	198	250	167
232	180	263	284	211	237					8	450	435	424	19	71	224	172	271	276	219	245
81	336	128	341	367	154					383	97	357	112	138	320	89	328	120	349	375	146
393	55	29	50	414	466					305	294	190	201	253	164	401	63	37	42	406	458
2	444	441	418	25	77					227	175	268	279	216	242	12	454	431	428	15	67
389	103	363	106	132	314					86	331	123	346	372	149	379	93	353	116	142	324
311	288	184	207	259	158					398	60	34	45	409	461	301	298	194	197	249	168
233	181	262	285	210	236											223	171	272	275	220	246
80	337	129	340	366	155											90	327	119	350	376	145
392	54	28	51	415	467											402	64	38	41	405	457
1	443	442	417	26	78											13	455	430	429	14	66
390	104	364	105	131	313											378	92	352	117	143	325
312	287	183	208	260	157											300	299	195	196	248	169
234	182	261	286	209	235											222	170	273	274	221	247
79	338	130	339	365	156											91	326	118	351	377	144
391	53	27	52	416	468											403	65	39	40	404	456

5	413	404	389	20	68	6	414	403	390	19	67	7	415	402	391	18	66
356	92	332	101	125	293	355	91	331	102	126	294	354	90	330	103	127	295
284	269	173	188	236	149	283	270	174	187	235	150	282	271	175	186	234	151
212	164	245	260	197	221	211	163	246	259	198	222	210	162	247	258	199	223
77	308	116	317	341	140	78	307	115	318	342	139	79	306	114	319	343	138
365	53	29	44	380	428	366	54	30	43	379	427	367	55	31	42	378	426
4	412	405	388	21	69							8	416	401	392	17	65
357	93	333	100	124	292							353	89	329	104	128	296
285	268	172	189	237	148							281	272	176	185	233	152
213	165	244	261	196	220							209	161	248	257	200	224
76	309	117	316	340	141							80	305	113	320	344	137
364	52	28	45	381	429							368	56	32	41	377	425
3	411	406	387	22	70							9	417	400	393	16	64
358	94	334	99	123	291							352	88	328	105	129	297
286	267	171	190	238	147							280	273	177	184	232	153
214	166	243	262	195	219							208	160	249	256	201	225
75	310	118	315	339	142							81	304	112	321	345	136
363	51	27	46	382	430							369	57	33	40	376	424
2	410	407	386	23	71							10	418	399	394	15	63
359	95	335	98	122	290							351	87	327	106	130	298
287	266	170	191	239	146							279	274	178	183	231	154
215	167	242	263	194	218							207	159	250	255	202	226
74	311	119	314	338	143							82	303	111	322	346	135
362	50	26	47	383	431							370	58	34	39	375	423
1	409	408	385	24	72	12	420	397	396	13	61	11	419	398	395	14	62
360	96	336	97	121	289	349	85	325	108	132	300	350	86	326	107	131	299
288	265	169	192	240	145	277	276	180	181	229	156	278	275	179	182	230	155
216	168	241	264	193	217	205	157	252	253	204	228	206	158	251	254	203	227
73	312	120	313	337	144	84	301	109	324	348	133	83	302	110	323	347	134
361	49	25	48	384	432	372	60	36	37	373	421	371	59	35	38	374	422

- The letter "N" is compose of 13 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 468 as given in Example 7.9. The magic sums of each block is $S_{6\times 6} := 1407$.
- The letter "O" is compose of 12 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 432 as given in Example 7.8. The magic sums of each block is $S_{6\times 6} := 1299$.

4.9 Letters P and Q

Example 4.9. *Below are letters "P" and "Q" written in terms of magic squares of order 6:*

5	345	336	325	16	56	6	346	335	326	15	55	7	347	334	327	14	54
296	76	276	85	105	245	295	75	275	86	106	246	294	74	274	87	107	247
236	225	145	156	196	125	235	226	146	155	195	126	234	227	147	154	194	127
176	136	205	216	165	185	175	135	206	215	166	186	174	134	207	214	167	187
65	256	96	265	285	116	66	255	95	266	286	115	67	254	94	267	287	114
305	45	25	36	316	356	306	46	26	35	315	355	307	47	27	34	314	354
4	344	337	324	17	57							8	348	333	328	13	53
297	77	277	84	104	244							293	73	273	88	108	248
237	224	144	157	197	124							233	228	148	153	193	128
177	137	204	217	164	184							173	133	208	213	168	188
64	257	97	264	284	117							68	253	93	268	288	113
304	44	24	37	317	357							308	48	28	33	313	353
3	343	338	323	18	58	10	350	331	330	11	51	9	349	332	329	12	52
298	78	278	83	103	243	291	71	271	90	110	250	292	72	272	89	109	249
238	223	143	158	198	123	231	230	150	151	191	130	232	229	149	152	192	129
178	138	203	218	163	183	171	131	210	211	170	190	172	132	209	212	169	189
63	258	98	263	283	118	70	251	91	270	290	111	69	252	92	269	289	112
303	43	23	38	318	358	310	50	30	31	311	351	309	49	29	32	312	352
2	342	339	322	19	59												
299	79	279	82	102	242												
239	222	142	159	199	122												
179	139	202	219	162	182												
62	259	99	262	282	119												
302	42	22	39	319	359												
1	341	340	321	20	60												
300	80	280	81	101	241												
240	221	141	160	200	121												
180	140	201	220	161	181												
61	260	100	261	281	120												
301	41	21	40	320	360												

7	449	436	423	20	72	8	450	435	424	19	71	9	451	434	425	18	70			
384	98	358	111	137	319	383	97	357	112	138	320	382	96	356	113	139	321			
306	293	189	202	254	163	305	294	190	201	253	164	304	295	191	200	252	165			
228	176	267	280	215	241	227	175	268	279	216	242	226	174	269	278	217	243			
85	332	124	345	371	150	86	331	123	346	372	149	87	330	122	347	373	148			
397	59	33	46	410	462	398	60	34	45	409	461	399	61	35	44	408	460			
6	448	437	422	21	73							10	452	433	426	17	69			
385	99	359	110	136	318							381	95	355	114	140	322			
307	292	188	203	255	162							303	296	192	199	251	166			
229	177	266	281	214	240							225	173	270	277	218	244			
84	333	125	344	370	151							88	329	121	348	374	147			
396	58	32	47	411	463							400	62	36	43	407	459			
5	447	438	421	22	74							11	453	432	427	16	68			
386	100	360	109	135	317							380	94	354	115	141	323			
308	291	187	204	256	161							302	297	193	198	250	167			
230	178	265	282	213	239							224	172	271	276	219	245			
83	334	126	343	369	152							89	328	120	349	375	146			
395	57	31	48	412	464							401	63	37	42	406	458			
4	446	439	420	23	75				12	454	431	428	15	67	13	455	430	429	14	66
387	101	361	108	134	316				379	93	353	116	142	324	378	92	352	117	143	325
309	290	186	205	257	160				301	298	194	197	249	168	300	299	195	196	248	169
231	179	264	283	212	238				223	171	272	275	220	246	222	170	273	274	221	247
82	335	127	342	368	153				90	327	119	350	376	145	91	326	118	351	377	144
394	56	30	49	413	465				402	64	38	41	405	457	403	65	39	40	404	456
3	445	440	419	24	76	2	444	441	418	25	77	1	443	442	417	26	78			
388	102	362	107	133	315	389	103	363	106	132	314	390	104	364	105	131	313			
310	289	185	206	258	159	311	288	184	207	259	158	312	287	183	208	260	157			
232	180	263	284	211	237	233	181	262	285	210	236	234	182	261	286	209	235			
81	336	128	341	367	154	80	337	129	340	366	155	79	338	130	339	365	156			
393	55	29	50	414	466	392	54	28	51	415	467	391	53	27	52	416	468			

- The letter **"P"** is compose of 10 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 360 as given in Example 7.6. The magic sums of each block is $S_{6\times 6} := 1083$.
- The letter **"Q"** is compose of 13 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 468 as given in Example 7.9. The magic sums of each block is $S_{6\times 6} := 1407$.

4.10 Letters R and S

Example 4.10. *Below are letters "R" and "S" written in terms of magic squares of order 6:*

5	413	404	389	20	68	6	414	403	390	19	67	7	415	402	391	18	66
356	92	332	101	125	293	355	91	331	102	126	294	354	90	330	103	127	295
284	269	173	188	236	149	283	270	174	187	235	150	282	271	175	186	234	151
212	164	245	260	197	221	211	163	246	259	198	222	210	162	247	258	199	223
77	308	116	317	341	140	78	307	115	318	342	139	79	306	114	319	343	138
365	53	29	44	380	428	366	54	30	43	379	427	367	55	31	42	378	426
4	412	405	388	21	69							8	416	401	392	17	65
357	93	333	100	124	292							353	89	329	104	128	296
285	268	172	189	237	148							281	272	176	185	233	152
213	165	244	261	196	220							209	161	248	257	200	224
76	309	117	316	340	141							80	305	113	320	344	137
364	52	28	45	381	429							368	56	32	41	377	425
3	411	406	387	22	70	10	418	399	394	15	63	9	417	400	393	16	64
358	94	334	99	123	291	351	87	327	106	130	298	352	88	328	105	129	297
286	267	171	190	238	147	279	274	178	183	231	154	280	273	177	184	232	153
214	166	243	262	195	219	207	159	250	255	202	226	208	160	249	256	201	225
75	310	118	315	339	142	82	303	111	322	346	135	81	304	112	321	345	136
363	51	27	46	382	430	370	58	34	39	375	423	369	57	33	40	376	424
2	410	407	386	23	71				11	419	398	395	14	62			
359	95	335	98	122	290				350	86	326	107	131	299			
287	266	170	191	239	146				278	275	179	182	230	155			
215	167	242	263	194	218				206	158	251	254	203	227			
74	311	119	314	338	143				83	302	110	323	347	134			
362	50	26	47	383	431				371	59	35	38	374	422			
1	409	408	385	24	72							12	420	397	396	13	61
360	96	336	97	121	289							349	85	325	108	132	300
288	265	169	192	240	145							277	276	180	181	229	156
216	168	241	264	193	217							205	157	252	253	204	228
73	312	120	313	337	144							84	301	109	324	348	133
361	49	25	48	384	432							372	60	36	37	373	421

9	383	366	361	14	58	10	384	365	362	13	57	11	385	364	363	12	56
322	80	300	97	119	273	321	79	299	98	120	274	320	78	298	99	121	275
256	251	163	168	212	141	255	252	164	167	211	142	254	253	165	166	210	143
190	146	229	234	185	207	189	145	230	233	186	208	188	144	231	232	187	209
75	278	102	295	317	124	76	277	101	296	318	123	77	276	100	297	319	122
339	53	31	36	344	388	340	54	32	35	343	387	341	55	33	34	342	386
8	382	367	360	15	59												
323	81	301	96	118	272												
257	250	162	169	213	140												
191	147	228	235	184	206												
74	279	103	294	316	125												
338	52	30	37	345	389												
7	381	368	359	16	60	6	380	369	358	17	61	5	379	370	357	18	62
324	82	302	95	117	271	325	83	303	94	116	270	326	84	304	93	115	269
258	249	161	170	214	139	259	248	160	171	215	138	260	247	159	172	216	137
192	148	227	236	183	205	193	149	226	237	182	204	194	150	225	238	181	203
73	280	104	293	315	126	72	281	105	292	314	127	71	282	106	291	313	128
337	51	29	38	346	390	336	50	28	39	347	391	335	49	27	40	348	392
												4	378	371	356	19	63
												327	85	305	92	114	268
												261	246	158	173	217	136
												195	151	224	239	180	202
												70	283	107	290	312	129
												334	48	26	41	349	393
1	375	374	353	22	66	2	376	373	354	21	65	3	377	372	355	20	64
330	88	308	89	111	265	329	87	307	90	112	266	328	86	306	91	113	267
264	243	155	176	220	133	263	244	156	175	219	134	262	245	157	174	218	135
198	154	221	242	177	199	197	153	222	241	178	200	196	152	223	240	179	201
67	286	110	287	309	132	68	285	109	288	310	131	69	284	108	289	311	130
331	45	23	44	352	396	332	46	24	43	351	395	333	47	25	42	350	394

- The letter **"R"** is compose of 12 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 432 as given in Example 7.8. The magic sums of each block is $S_{6\times 6} := 1299$.
- The letter **"S"** is compose of 11 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 396 as given in Example 7.7. The magic sums of each block is $S_{6\times 6} := 1191$.

4.11 Letters T and U

Example 4.11. *Below are letters "T" and "U" written in terms of magic squares of order 6 with equal magic sums 515 and 122 using consecutive numbers 1 to 155 and 1 to 188 respectively:*

5	243	234	229	10	38	6	244	233	230	9	37	7	245	232	231	8	36
206	52	192	61	75	173	205	51	191	62	76	174	204	50	190	63	77	175
164	159	103	108	136	89	163	160	104	107	135	90	162	161	105	106	134	91
122	94	145	150	117	131	121	93	146	149	118	132	120	92	147	148	119	133
47	178	66	187	201	80	48	177	65	188	202	79	49	176	64	189	203	78
215	33	19	24	220	248	216	34	20	23	219	247	217	35	21	22	218	246
						4	242	235	228	11	39						
						207	53	193	60	74	172						
						165	158	102	109	137	88						
						123	95	144	151	116	130						
						46	179	67	186	200	81						
						214	32	18	25	221	249						
						3	241	236	227	12	40						
						208	54	194	59	73	171						
						166	157	101	110	138	87						
						124	96	143	152	115	129						
						45	180	68	185	199	82						
						213	31	17	26	222	250						
						2	240	237	226	13	41						
						209	55	195	58	72	170						
						167	156	100	111	139	86						
						125	97	142	153	114	128						
						44	181	69	184	198	83						
						212	30	16	27	223	251						
						1	239	238	225	14	42						
						210	56	196	57	71	169						
						168	155	99	112	140	85						
						126	98	141	154	113	127						
						43	182	70	183	197	84						
						211	29	15	28	224	252						

1	375	374	353	22	66							11	385	364	363	12	56
330	88	308	89	111	265							320	78	298	99	121	275
264	243	155	176	220	133							254	253	165	166	210	143
198	154	221	242	177	199							188	144	231	232	187	209
67	286	110	287	309	132							77	276	100	297	319	122
331	45	23	44	352	396							341	55	33	34	342	386
2	376	373	354	21	65							10	384	365	362	13	57
329	87	307	90	112	266							321	79	299	98	120	274
263	244	156	175	219	134							255	252	164	167	211	142
197	153	222	241	178	200							189	145	230	233	186	208
68	285	109	288	310	131							76	277	101	296	318	123
332	46	24	43	351	395							340	54	32	35	343	387
3	377	372	355	20	64							9	383	366	361	14	58
328	86	306	91	113	267							322	80	300	97	119	273
262	245	157	174	218	135							256	251	163	168	212	141
196	152	223	240	179	201							190	146	229	234	185	207
69	284	108	289	311	130							75	278	102	295	317	124
333	47	25	42	350	394							339	53	31	36	344	388
4	378	371	356	19	63							8	382	367	360	15	59
327	85	305	92	114	268							323	81	301	96	118	272
261	246	158	173	217	136							257	250	162	169	213	140
195	151	224	239	180	202							191	147	228	235	184	206
70	283	107	290	312	129							74	279	103	294	316	125
334	48	26	41	349	393							338	52	30	37	345	389
5	379	370	357	18	62	6	380	369	358	17	61	7	381	368	359	16	60
326	84	304	93	115	269	325	83	303	94	116	270	324	82	302	95	117	271
260	247	159	172	216	137	259	248	160	171	215	138	258	249	161	170	214	139
194	150	225	238	181	203	193	149	226	237	182	204	192	148	227	236	183	205
71	282	106	291	313	128	72	281	105	292	314	127	73	280	104	293	315	126
335	49	27	40	348	392	336	50	28	39	347	391	337	51	29	38	346	390

- The letter "T" is compose of 7 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 252 as given in Example 7.3. The magic sums of each block is $S_{6\times 6} := 759$.
- The letter "U" is compose of 11 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 272 as given in Example 7.7. The magic sums of each block is $S_{6\times 6} := 1191$.

4.12 Letter V

Example 4.12. *Below is a letter "V" written in terms of magic squares of order 6:*

1	307	306	289	18	54
270	72	252	73	91	217
216	199	127	144	180	109
162	126	181	198	145	163
55	234	90	235	253	108
271	37	19	36	288	324

9	315	298	297	10	46
262	64	244	81	99	225
208	207	135	136	172	117
154	118	189	190	153	171
63	226	82	243	261	100
279	45	27	28	280	316

2	308	305	290	17	53
269	71	251	74	92	218
215	200	128	143	179	110
161	125	182	197	146	164
56	233	89	236	254	107
272	38	20	35	287	323

8	314	299	296	11	47
263	65	245	80	98	224
209	206	134	137	173	116
155	119	188	191	152	170
62	227	83	242	260	101
278	44	26	29	281	317

3	309	304	291	16	52
268	70	250	75	93	219
214	201	129	142	178	111
160	124	183	196	147	165
57	232	88	237	255	106
273	39	21	34	286	322

7	313	300	295	12	48
264	66	246	79	97	223
210	205	133	138	174	115
156	120	187	192	151	169
61	228	84	241	259	102
277	43	25	30	282	318

4	310	303	292	15	51
267	69	249	76	94	220
213	202	130	141	177	112
159	123	184	195	148	166
58	231	87	238	256	105
274	40	22	33	285	321

6	312	301	294	13	49
265	67	247	78	96	222
211	204	132	139	175	114
157	121	186	193	150	168
60	229	85	240	258	103
276	42	24	31	283	319

5	311	302	293	14	50
266	68	248	77	95	221
212	203	131	140	176	113
158	122	185	194	149	167
59	230	86	239	257	104
275	41	23	32	284	320

- The letter **"V"** is compose of 9 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 324 as given in Example 7.3. The magic sums of each block is $S_{6\times 6} := 975$.

4.13 Letter W

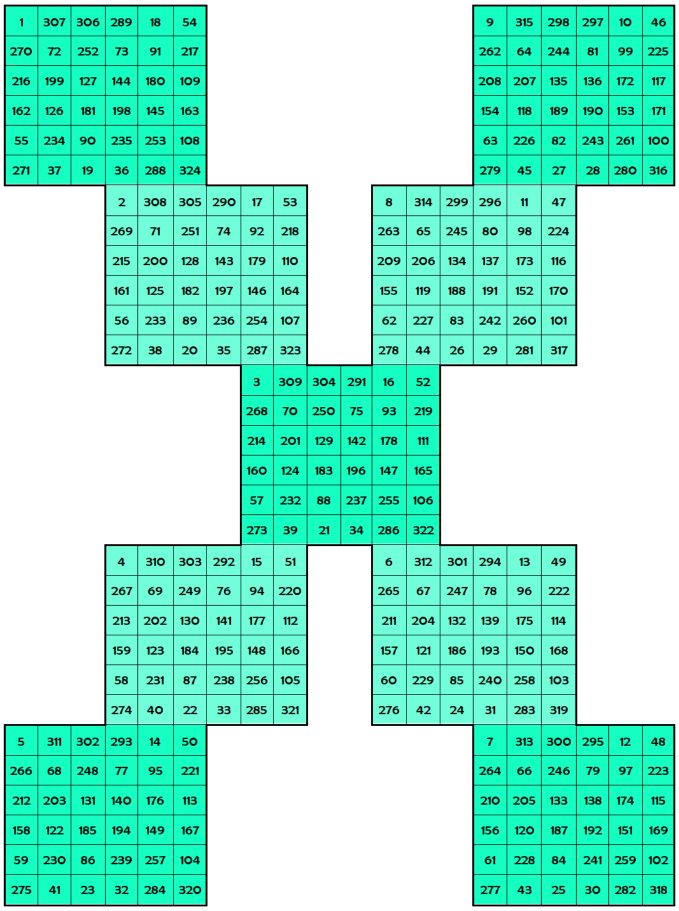
Example 4.13. *Below is a letter "W" written in terms of magic squares of order 6:*

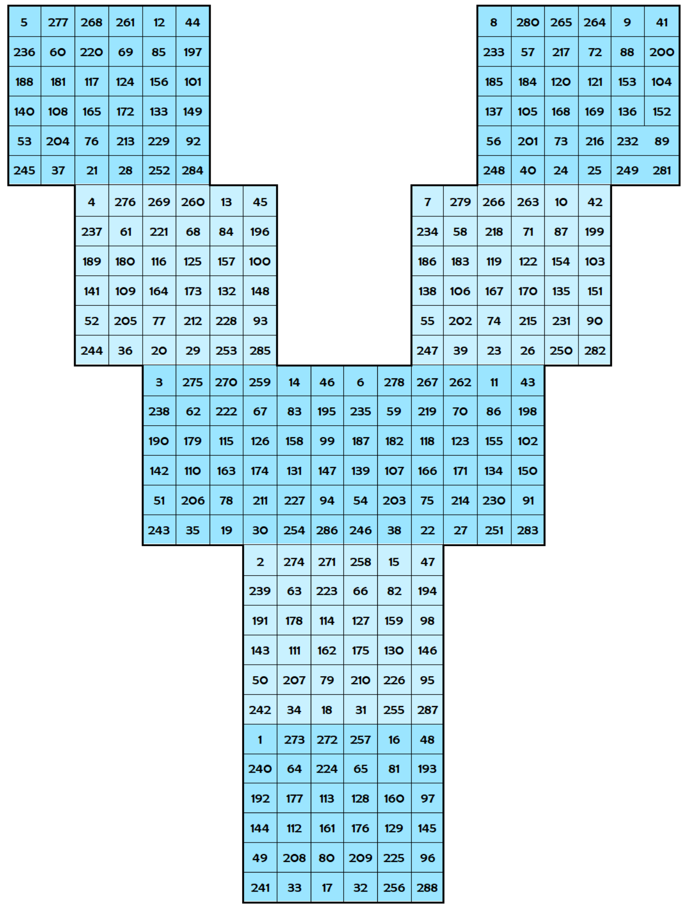
5	515	506	485	26	86																			15	525	496	495	16	76
446	116	416	125	155	365																			436	106	406	135	165	375
356	335	215	236	296	185																			346	345	225	226	286	195
266	206	305	326	245	275																			256	196	315	316	255	285
95	386	146	395	425	176																			105	376	136	405	435	166
455	65	35	56	476	536																			465	75	45	46	466	526
4	514	507	484	27	87																			14	524	497	494	17	77
447	117	417	124	154	364																			437	107	407	134	164	374
357	334	214	237	297	184																			347	344	224	227	287	194
267	207	304	327	244	274																			257	197	314	317	254	284
94	387	147	394	424	177							9	519	502	489	22	82							104	377	137	404	434	167
454	64	34	57	477	537							442	112	412	129	159	369							464	74	44	47	467	527
3	513	508	483	28	88							352	339	219	232	292	189							13	523	498	493	18	78
448	118	418	123	153	363							262	202	309	322	249	279							438	108	408	133	163	373
358	333	213	238	298	183							99	382	142	399	429	172							348	343	223	228	288	193
268	208	303	328	243	273							459	69	39	52	472	532							258	198	313	318	253	283
93	388	148	393	423	178			7	517	504	487	24	84			8	518	503	488	23	83			103	378	138	403	433	168
453	63	33	58	478	538			444	114	414	127	157	367			443	113	413	128	158	368			463	73	43	48	468	528
2	512	509	482	29	89			354	337	217	234	294	187			353	338	218	233	293	188			12	522	499	492	19	79
449	119	419	122	152	362			264	204	307	324	247	277			263	203	308	323	248	278			439	109	409	132	162	372
359	332	212	239	299	182			97	384	144	397	427	174			98	383	143	398	428	173			349	342	222	229	289	192
269	209	302	329	242	272			457	67	37	54	474	534			458	68	38	53	473	533			259	199	312	319	252	282
92	389	149	392	422	179	6	516	505	486	25	85							10	520	501	490	21	81	102	379	139	402	432	169
452	62	32	59	479	539	445	115	415	126	156	366							441	111	411	130	160	370	462	72	42	49	469	529
1	511	510	481	30	90	355	336	216	235	295	186							351	340	220	231	291	190	11	521	500	491	20	80
450	120	420	121	151	361	265	205	306	325	246	276							261	201	310	321	250	280	440	110	410	131	161	371
360	331	211	240	300	181	96	385	145	396	426	175							100	381	141	400	430	171	350	341	221	230	290	191
270	210	301	330	241	271	456	66	36	55	475	535							460	70	40	51	471	531	260	200	311	320	251	281
91	390	150	391	421	180																			101	380	140	401	431	170
451	61	31	60	480	540																			461	71	41	50	470	530

- The letter **"W"** is compose of 15 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 540 as given in Example 7.11. The magic sums of each block is $S_{6\times 6} := 1623$.

4.14 Letters X and Y

Example 4.14. *Below are letters "X" and "Y" written in terms of magic squares of order 6:*





- The letter "X" is compose of 9 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 324 as given in Example 7.5. The magic sums of each block is $S_{6\times 6} := 975$.

- The letter "Y" is compose of 8 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 284 as given in Example 7.4. The magic sums of each block is $S_{6\times 6} := 867$.

4.15 Letter Z

Example 4.15. *Below is a letter "Z" written in terms of magic squares of order 6:*

9	315	298	297	10	46	8	314	299	296	11	47	7	313	300	295	12	48
262	64	244	81	99	225	263	65	245	80	98	224	264	66	246	79	97	223
208	207	135	136	172	117	209	206	134	137	173	116	210	205	133	138	174	115
154	118	189	190	153	171	155	119	188	191	152	170	156	120	187	192	151	169
63	226	82	243	261	100	62	227	83	242	260	101	61	228	84	241	259	102
279	45	27	28	280	316	278	44	26	29	281	317	277	43	25	30	282	318
										6	312	301	294	13	49		
										265	67	247	78	96	222		
										211	204	132	139	175	114		
										157	121	186	193	150	168		
										60	229	85	240	258	103		
										276	42	24	31	283	319		
						5	311	302	293	14	50						
						266	68	248	77	95	221						
						212	203	131	140	176	113						
						158	122	185	194	149	167						
						59	230	86	239	257	104						
						275	41	23	32	284	320						
		4	310	303	292	15	51										
		267	69	249	76	94	220										
		213	202	130	141	177	112										
		159	123	184	195	148	166										
		58	231	87	238	256	105										
		274	40	22	33	285	321										
3	309	304	291	16	52	2	308	305	290	17	53	1	307	306	289	18	54
268	70	250	75	93	219	269	71	251	74	92	218	270	72	252	73	91	217
214	201	129	142	178	111	215	200	128	143	179	110	216	199	127	144	180	109
160	124	183	196	147	165	161	125	182	197	146	164	162	126	181	198	145	163
57	232	88	237	255	106	56	233	89	236	254	107	55	234	90	235	253	108
273	39	21	34	286	322	272	38	20	35	287	323	271	37	19	36	288	324

- The letter **"Z"** is compose of 9 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 324 as given in Example 7.5. The magic sums of each block is $S_{6\times 6} := 975$.

5 Numbers With Blocks of Magic Square of Order 4

5.1 Numbers 0 and 1

Example 5.1. *Below are letters "0" and "1" written in terms of magic squares of order 6:*

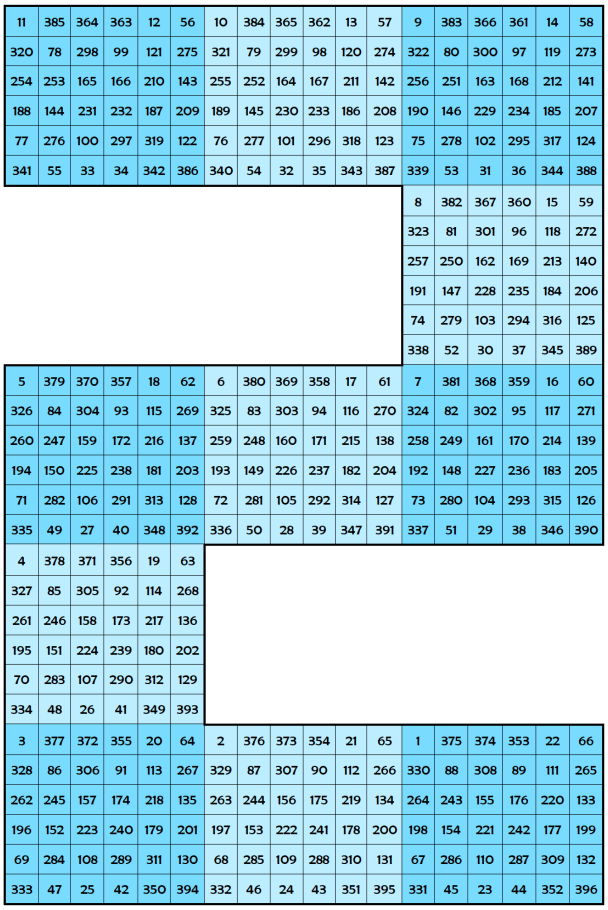
5	413	404	389	20	68	6	414	403	390	19	67	7	415	402	391	18	66
356	92	332	101	125	293	355	91	331	102	126	294	354	90	330	103	127	295
284	269	173	188	236	149	283	270	174	187	235	150	282	271	175	186	234	151
212	164	245	260	197	221	211	163	246	259	198	222	210	162	247	258	199	223
77	308	116	317	341	140	78	307	115	318	342	139	79	306	114	319	343	138
365	53	29	44	380	428	366	54	30	43	379	427	367	55	31	42	378	426
4	412	405	388	21	69							8	416	401	392	17	65
357	93	333	100	124	292							353	89	329	104	128	296
285	268	172	189	237	148							281	272	176	185	233	152
213	165	244	261	196	220							209	161	248	257	200	224
76	309	117	316	340	141							80	305	113	320	344	137
364	52	28	45	381	429							368	56	32	41	377	425
3	411	406	387	22	70							9	417	400	393	16	64
358	94	334	99	123	291							352	88	328	105	129	297
286	267	171	190	238	147							280	273	177	184	232	153
214	166	243	262	195	219							208	160	249	256	201	225
75	310	118	315	339	142							81	304	112	321	345	136
363	51	27	46	382	430							369	57	33	40	376	424
2	410	407	386	23	71							10	418	399	394	15	63
359	95	335	98	122	290							351	87	327	106	130	298
287	266	170	191	239	146							279	274	178	183	231	154
215	167	242	263	194	218							207	159	250	255	202	226
74	311	119	314	338	143							82	303	111	322	346	135
362	50	26	47	383	431							370	58	34	39	375	423
1	409	408	385	24	72	12	420	397	396	13	61	11	419	398	395	14	62
360	96	336	97	121	289	349	85	325	108	132	300	350	86	326	107	131	299
288	265	169	192	240	145	277	276	180	181	229	156	278	275	179	182	230	155
216	168	241	264	193	217	205	157	252	253	204	228	206	158	251	254	203	227
73	312	120	313	337	144	84	301	109	324	348	133	83	302	110	323	347	134
361	49	25	48	384	432	372	60	36	37	373	421	371	59	35	38	374	422

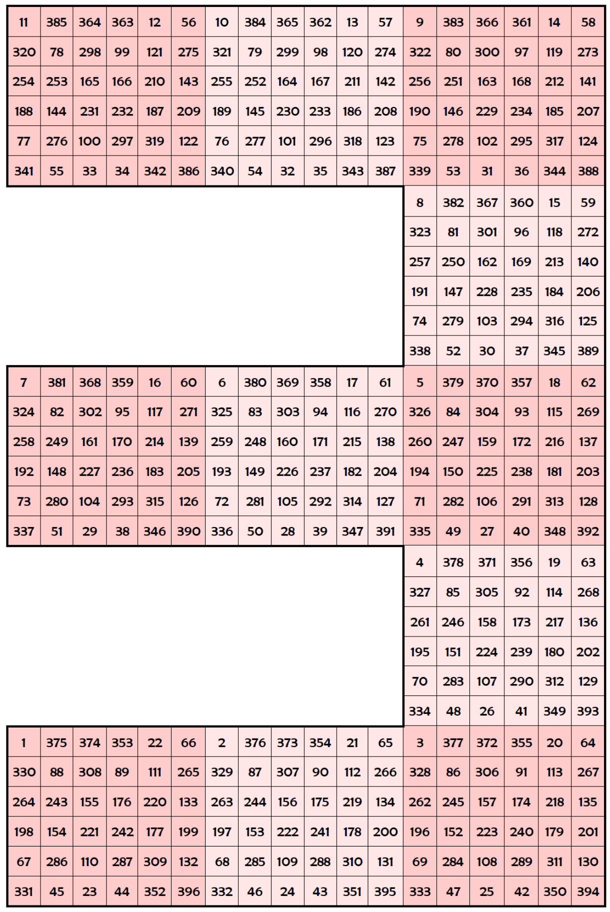
5	175	166	165	6	26
146	36	136	45	55	125
116	115	75	76	96	65
86	66	105	106	85	95
35	126	46	135	145	56
155	25	15	16	156	176
4	174	167	164	7	27
147	37	137	44	54	124
117	114	74	77	97	64
87	67	104	107	84	94
34	127	47	134	144	57
154	24	14	17	157	177
3	173	168	163	8	28
148	38	138	43	53	123
118	113	73	78	98	63
88	68	103	108	83	93
33	128	48	133	143	58
153	23	13	18	158	178
2	172	169	162	9	29
149	39	139	42	52	122
119	112	72	79	99	62
89	69	102	109	82	92
32	129	49	132	142	59
152	22	12	19	159	179
1	171	170	161	10	30
150	40	140	41	51	121
120	111	71	80	100	61
90	70	101	110	81	91
31	130	50	131	141	60
151	21	11	20	160	180

- The letter **"0"** is compose of 12 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 432 as given in Example 7.8. The magic sums of each block is $S_{6\times 6} := 1299$.
- The letter **"1"** is compose of 5 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 180 as given in Example 7.1. The magic sums of each block is $S_{6\times 6} := 543$.

5.2 Numbers 2 and 3

Example 5.2. *Below are letters "2" and "3" written in terms of magic squares of order 6:*





- The letter **"2"** is compose of 11 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 396 as given in Example 7.7. The magic sums of each block is $S_{6\times 6} := 1191$.
- The letter **"3"** is compose of 11 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 396 as given in Example 7.7. The magic sums of each block is $S_{6\times 6} := 1191$.

5.3 Numbers 4 and 5

Example 5.3. *Below are letters "4" and "5" written in terms of magic squares of order 6:*

9	315	298	297	10	46							5	311	302	293	14	50
262	64	244	81	99	225							266	68	248	77	95	221
208	207	135	136	172	117							212	203	131	140	176	113
154	118	189	190	153	171							158	122	185	194	149	167
63	226	82	243	261	100							59	230	86	239	257	104
279	45	27	28	280	316							275	41	23	32	284	320
8	314	299	296	11	47							4	310	303	292	15	51
263	65	245	80	98	224							267	69	249	76	94	220
209	206	134	137	173	116							213	202	130	141	177	112
155	119	188	191	152	170							159	123	184	195	148	166
62	227	83	242	260	101							58	231	87	238	256	105
278	44	26	29	281	317							274	40	22	33	285	321
7	313	300	295	12	48	6	312	301	294	13	49	3	309	304	291	16	52
264	66	246	79	97	223	265	67	247	78	96	222	268	70	250	75	93	219
210	205	133	138	174	115	211	204	132	139	175	114	214	201	129	142	178	111
156	120	187	192	151	169	157	121	186	193	150	168	160	124	183	196	147	165
61	228	84	241	259	102	60	229	85	240	258	103	57	232	88	237	255	106
277	43	25	30	282	318	276	42	24	31	283	319	273	39	21	34	286	322
												2	308	305	290	17	53
												269	71	251	74	92	218
												215	200	128	143	179	110
												161	125	182	197	146	164
												56	233	89	236	254	107
												272	38	20	35	287	323
												1	307	306	289	18	54
												270	72	252	73	91	217
												216	199	127	144	180	109
												162	126	181	198	145	163
												55	234	90	235	253	108
												271	37	19	36	288	324

9	383	366	361	14	58	10	384	365	362	13	57	11	385	364	363	12	56
322	80	300	97	119	273	321	79	299	98	120	274	320	78	298	99	121	275
256	251	163	168	212	141	255	252	164	167	211	142	254	253	165	166	210	143
190	146	229	234	185	207	189	145	230	233	186	208	188	144	231	232	187	209
75	278	102	295	317	124	76	277	101	296	318	123	77	276	100	297	319	122
339	53	31	36	344	388	340	54	32	35	343	387	341	55	33	34	342	386
8	382	367	360	15	59												
323	81	301	96	118	272												
257	250	162	169	213	140												
191	147	228	235	184	206												
74	279	103	294	316	125												
338	52	30	37	345	389												
7	381	368	359	16	60	6	380	369	358	17	61	5	379	370	357	18	62
324	82	302	95	117	271	325	83	303	94	116	270	326	84	304	93	115	269
258	249	161	170	214	139	259	248	160	171	215	138	260	247	159	172	216	137
192	148	227	236	183	205	193	149	226	237	182	204	194	150	225	238	181	203
73	280	104	293	315	126	72	281	105	292	314	127	71	282	106	291	313	128
337	51	29	38	346	390	336	50	28	39	347	391	335	49	27	40	348	392
												4	378	371	356	19	63
												327	85	305	92	114	268
												261	246	158	173	217	136
												195	151	224	239	180	202
												70	283	107	290	312	129
												334	48	26	41	349	393
1	375	374	353	22	66	2	376	373	354	21	65	3	377	372	355	20	64
330	88	308	89	111	265	329	87	307	90	112	266	328	86	306	91	113	267
264	243	155	176	220	133	263	244	156	175	219	134	262	245	157	174	218	135
198	154	221	242	177	199	197	153	222	241	178	200	196	152	223	240	179	201
67	286	110	287	309	132	68	285	109	288	310	131	69	284	108	289	311	130
331	45	23	44	352	396	332	46	24	43	351	395	333	47	25	42	350	394

- The letter "**4**" is compose of 9 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 324 as given in Example 7.5. The magic sums of each block is $S_{6\times 6} := 975$.
- The letter "**5**" is compose of 11 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 396 as given in Example 7.7. The magic sums of each block is $S_{6\times 6} := 1191$.

5.4 Numbers 6 and 7

Example 5.4. *Below are letters "**6**" and "**7**" written in terms of magic squares of order 6:*

10	418	399	394	15	63	11	419	398	395	14	62	12	420	397	396	13	61
351	87	327	106	130	298	350	86	326	107	131	299	349	85	325	108	132	300
279	274	178	183	231	154	278	275	179	182	230	155	277	276	180	181	229	156
207	159	250	255	202	226	206	158	251	254	203	227	205	157	252	253	204	228
82	303	111	322	346	135	83	302	110	323	347	134	84	301	109	324	348	133
370	58	34	39	375	423	371	59	35	38	374	422	372	60	36	37	373	421
9	417	400	393	16	64												
352	88	328	105	129	297												
280	273	177	184	232	153												
208	160	249	256	201	225												
81	304	112	321	345	136												
369	57	33	40	376	424												
8	416	401	392	17	65	1	409	408	385	24	72	2	410	407	386	23	71
353	89	329	104	128	296	360	96	336	97	121	289	359	95	335	98	122	290
281	272	176	185	233	152	288	265	169	192	240	145	287	266	170	191	239	146
209	161	248	257	200	224	216	168	241	264	193	217	215	167	242	263	194	218
80	305	113	320	344	137	73	312	120	313	337	144	74	311	119	314	338	143
368	56	32	41	377	425	361	49	25	48	384	432	362	50	26	47	383	431
7	415	402	391	18	66							3	411	406	387	22	70
354	90	330	103	127	295							358	94	334	99	123	291
282	271	175	186	234	151							286	267	171	190	238	147
210	162	247	258	199	223							214	166	243	262	195	219
79	306	114	319	343	138							75	310	118	315	339	142
367	55	31	42	378	426							363	51	27	46	382	430
6	414	403	390	19	67	5	413	404	389	20	68	4	412	405	388	21	69
355	91	331	102	126	294	356	92	332	101	125	293	357	93	333	100	124	292
283	270	174	187	235	150	284	269	173	188	236	149	285	268	172	189	237	148
211	163	246	259	198	222	212	164	245	260	197	221	213	165	244	261	196	220
78	307	115	318	342	139	77	308	116	317	341	140	76	309	117	316	340	141
366	54	30	43	379	427	365	53	29	44	380	428	364	52	28	45	381	429

7	245	232	231	8	36	6	244	233	230	9	37	5	243	234	229	10	38
204	50	190	63	77	175	205	51	191	62	76	174	206	52	192	61	75	173
162	161	105	106	134	91	163	160	104	107	135	90	164	159	103	108	136	89
120	92	147	148	119	133	121	93	146	149	118	132	122	94	145	150	117	131
49	176	64	189	203	78	48	177	65	188	202	79	47	178	66	187	201	80
217	35	21	22	218	246	216	34	20	23	219	247	215	33	19	24	220	248
												4	242	235	228	11	39
												207	53	193	60	74	172
												165	158	102	109	137	88
												123	95	144	151	116	130
												46	179	67	186	200	81
												214	32	18	25	221	249
												3	241	236	227	12	40
												208	54	194	59	73	171
												166	157	101	110	138	87
												124	96	143	152	115	129
												45	180	68	185	199	82
												213	31	17	26	222	250
												2	240	237	226	13	41
												209	55	195	58	72	170
												167	156	100	111	139	86
												125	97	142	153	114	128
												44	181	69	184	198	83
												212	30	16	27	223	251
												1	239	238	225	14	42
												210	56	196	57	71	169
												168	155	99	112	140	85
												126	98	141	154	113	127
												43	182	70	183	197	84
												211	29	15	28	224	252

- The letter "**6**" is compose of 12 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 432 as given in Example 7.8. The magic sums of each block is $S_{6\times 6} := 1299$.
- The letter "**7**" is compose of 7 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 252 as given in Example 7.3. The magic sums of each block is $S_{6\times 6} := 759$.

5.5 Numbers 8 and 9

Example 5.5. *Below are letters "**8**" and "**9**" written in terms of magic squares of order 6:*

5	447	438	421	22	74	6	448	437	422	21	73	7	449	436	423	20	72
386	100	360	109	135	317	385	99	359	110	136	318	384	98	358	111	137	319
308	291	187	204	256	161	307	292	188	203	255	162	306	293	189	202	254	163
230	178	265	282	213	239	229	177	266	281	214	240	228	176	267	280	215	241
83	334	126	343	369	152	84	333	125	344	370	151	85	332	124	345	371	150
395	57	31	48	412	464	396	58	32	47	411	463	397	59	33	46	410	462
4	446	439	420	23	75							8	450	435	424	19	71
387	101	361	108	134	316							383	97	357	112	138	320
309	290	186	205	257	160							305	294	190	201	253	164
231	179	264	283	212	238							227	175	268	279	216	242
82	335	127	342	368	153							86	331	123	346	372	149
394	56	30	49	413	465							398	60	34	45	409	461
3	445	440	419	24	76	10	452	433	426	17	69	9	451	434	425	18	70
388	102	362	107	133	315	381	95	355	114	140	322	382	96	356	113	139	321
310	289	185	206	258	159	303	296	192	199	251	166	304	295	191	200	252	165
232	180	263	284	211	237	225	173	270	277	218	244	226	174	269	278	217	243
81	336	128	341	367	154	88	329	121	348	374	147	87	330	122	347	373	148
393	55	29	50	414	466	400	62	36	43	407	459	399	61	35	44	408	460
2	444	441	418	25	77							11	453	432	427	16	68
389	103	363	106	132	314							380	94	354	115	141	323
311	288	184	207	259	158							302	297	193	198	250	167
233	181	262	285	210	236							224	172	271	276	219	245
80	337	129	340	366	155							89	328	120	349	375	146
392	54	28	51	415	467							401	63	37	42	406	458
1	443	442	417	26	78	13	455	430	429	14	66	12	454	431	428	15	67
390	104	364	105	131	313	378	92	352	117	143	325	379	93	353	116	142	324
312	287	183	208	260	157	300	299	195	196	248	169	301	298	194	197	249	168
234	182	261	286	209	235	222	170	273	274	221	247	223	171	272	275	220	246
79	338	130	339	365	156	91	326	118	351	377	144	90	327	119	350	376	145
391	53	27	52	416	468	403	65	39	40	404	456	402	64	38	41	405	457

4	412	405	388	21	69	5	413	404	389	20	68	6	414	403	390	19	67
357	93	333	100	124	292	356	92	332	101	125	293	355	91	331	102	126	294
285	268	172	189	237	148	284	269	173	188	236	149	283	270	174	187	235	150
213	165	244	261	196	220	212	164	245	260	197	221	211	163	246	259	198	222
76	309	117	316	340	141	77	308	116	317	341	140	78	307	115	318	342	139
364	52	28	45	381	429	365	53	29	44	380	428	366	54	30	43	379	427
3	411	406	387	22	70							7	415	402	391	18	66
358	94	334	99	123	291							354	90	330	103	127	295
286	267	171	190	238	147							282	271	175	186	234	151
214	166	243	262	195	219							210	162	247	258	199	223
75	310	118	315	339	142							79	306	114	319	343	138
363	51	27	46	382	430							367	55	31	42	378	426
2	410	407	386	23	71	1	409	408	385	24	72	8	416	401	392	17	65
359	95	335	98	122	290	360	96	336	97	121	289	353	89	329	104	128	296
287	266	170	191	239	146	288	265	169	192	240	145	281	272	176	185	233	152
215	167	242	263	194	218	216	168	241	264	193	217	209	161	248	257	200	224
74	311	119	314	338	143	73	312	120	313	337	144	80	305	113	320	344	137
362	50	26	47	383	431	361	49	25	48	384	432	368	56	32	41	377	425
												9	417	400	393	16	64
												352	88	328	105	129	297
												280	273	177	184	232	153
												208	160	249	256	201	225
												81	304	112	321	345	136
												369	57	33	40	376	424
12	420	397	396	13	61	11	419	398	395	14	62	10	418	399	394	15	63
349	85	325	108	132	300	350	86	326	107	131	299	351	87	327	106	130	298
277	276	180	181	229	156	278	275	179	182	230	155	279	274	178	183	231	154
205	157	252	253	204	228	206	158	251	254	203	227	207	159	250	255	202	226
84	301	109	324	348	133	83	302	110	323	347	134	82	303	111	322	346	135
372	60	36	37	373	421	371	59	35	38	374	422	370	58	34	39	375	423

- The letter "**8**" is compose of 13 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 468 as given in Example 7.9. The magic sums of each block is $S_{6\times 6} := 1407$.
- The letter "**9**" is compose of 12 blocks of magic squares of order 6 with equal magic sums using the consecutive numbers from 1 to 432 as given in Example 7.8. The magic sums of each block is $S_{6\times 6} := 1299$.

6 Construction Procedure: Blocks of Magic Square of Order 4

The constructions of letters and numbers given in Sections 2 and 3 are based on blocks of equal sums magic squares of order 4. Below is a process of construction of these blocks. These are from block 5 to block 17.

6.1 5-Blocks

In order to construct 5-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 80 in five parts giving equal sums.

Distribution 6.1. *Let's distribute the numbers 1 to 80 in five parts giving equal sums:*

A1	1	10	11	20	21	30	31	40	41	50	51	60	61	70	71	80	648
A2	2	9	12	19	22	29	32	39	42	49	52	59	62	69	72	79	648
A3	3	8	13	18	23	28	33	38	43	48	53	58	63	68	73	78	648
A4	4	7	14	17	24	27	34	37	44	47	54	57	64	67	74	77	648
A5	5	6	15	16	25	26	35	36	45	46	55	56	65	66	75	76	648

According to above five rows A1 to A5, the example below give 5 magic squares of equal magic sums.

Example 6.1. *Applying the values given in Distribution 6.1 over the magic square of order 4 given in Example 1.1, we get the following five magic squares of equal magic sums:*

A1		162	162	162	162
	1	40	61	60	162
162	70	51	10	31	162
162	20	21	80	41	162
162	71	50	11	30	162
	162	162	162	162	162

A2		162	162	162	162
	2	39	62	59	162
162	69	52	9	32	162
162	19	22	79	42	162
162	72	49	12	29	162
	162	162	162	162	162

A3		162	162	162	162
	3	38	63	58	162
162	68	53	8	33	162
162	18	23	78	43	162
162	73	48	13	28	162
	162	162	162	162	162

A4		162	162	162	162
	4	37	64	57	162
162	67	54	7	34	162
162	17	24	77	44	162
162	74	47	14	27	162
	162	162	162	162	162

A5		162	162	162	162
	5	36	65	56	162
162	66	55	6	35	162
162	16	25	76	45	162
162	75	46	15	26	162
	162	162	162	162	162

6.2 6-Blocks

In order to construct 6-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 96 in six parts giving equal sums.

Distribution 6.2. *Let's distribute the numbers 1 to 96 in six parts giving equal sums*

A1	1	12	13	24	25	36	37	48	49	60	61	72	73	84	85	96	776
A2	2	11	14	23	26	35	38	47	50	59	62	71	74	83	86	95	776
A3	3	10	15	22	27	34	39	46	51	58	63	70	75	82	87	94	776
A4	4	9	16	21	28	33	40	45	52	57	64	69	76	81	88	93	776
A5	5	8	17	20	29	32	41	44	53	56	65	68	77	80	89	92	776
A6	6	7	18	19	30	31	42	43	54	55	66	67	78	79	90	91	776

According to above six rows A1 to A6, the example below give 6 magic squares of equal magic sums.

Example 6.2. *Applying the values given in Distribution 6.2 over the magic square of order 4 given in Example 1.1, we get following six magic squares of equal magic sums:*

A1		194	194	194	194
	1	48	73	72	194
194	84	61	12	37	194
194	24	25	96	49	194
194	85	60	13	36	194
	194	194	194	194	194

A2		194	194	194	194
	2	47	74	71	194
194	83	62	11	38	194
194	23	26	95	50	194
194	86	59	14	35	194
	194	194	194	194	194

A3		194	194	194	194
	3	46	75	70	194
194	82	63	10	39	194
194	22	27	94	51	194
194	87	58	15	34	194
	194	194	194	194	194

A4		194	194	194	194
	4	45	76	69	194
194	81	64	9	40	194
194	21	28	93	52	194
194	88	57	16	33	194
	194	194	194	194	194

A5		194	194	194	194
	5	44	77	68	194
194	80	65	8	41	194
194	20	29	92	53	194
194	89	56	17	32	194
	194	194	194	194	194

A6		194	194	194	194
	6	43	78	67	194
194	79	66	7	42	194
194	19	30	91	54	194
194	90	55	18	31	194
	194	194	194	194	194

6.3 7-Blocks

In order to construct 7-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 112 in seven parts giving equal sums.

Distribution 6.3. *Let's distribute the numbers 1 to 112 in seven parts giving equal sums:*

A1	1	14	15	28	29	42	43	56	57	70	71	84	85	98	99	112	904
A2	2	13	16	27	30	41	44	55	58	69	72	83	86	97	100	111	904
A3	3	12	17	26	31	40	45	54	59	68	73	82	87	96	101	110	904
A4	4	11	18	25	32	39	46	53	60	67	74	81	88	95	102	109	904
A5	5	10	19	24	33	38	47	52	61	66	75	80	89	94	103	108	904
A6	6	9	20	23	34	37	48	51	62	65	76	79	90	93	104	107	904
A7	7	8	21	22	35	36	49	50	63	64	77	78	91	92	105	106	904

According to above seven rows A1 to A7, the example below give 7 magic squares of equal magic sums.

Example 6.3. *Applying the values given in Distribution 6.3 over the magic square of order 4 given in Example 1.1, we get following seven magic squares of equal magic sums:*

A1		226	226	226	226
	1	56	85	84	226
226	98	71	14	43	226
226	28	29	112	57	226
226	99	70	15	42	226
	226	226	226	226	226

A2		226	226	226	226
	2	55	86	83	226
226	97	72	13	44	226
226	27	30	111	58	226
226	100	69	16	41	226
	226	226	226	226	226

A3		226	226	226	226
	3	54	87	82	226
226	96	73	12	45	226
226	26	31	110	59	226
226	101	68	17	40	226
	226	226	226	226	226

A4		226	226	226	226
	4	53	88	81	226
226	95	74	11	46	226
226	25	32	109	60	226
226	102	67	18	39	226
	226	226	226	226	226

A5		226	226	226	226
	5	52	89	80	226
226	94	75	10	47	226
226	24	33	108	61	226
226	103	66	19	38	226
	226	226	226	226	226

A6		226	226	226	226
	6	51	90	79	226
226	93	76	9	48	226
226	23	34	107	62	226
226	104	65	20	37	226
	226	226	226	226	226

A7		226	226	226	226
	7	50	91	78	226
226	92	77	8	49	226
226	22	35	106	63	226
226	105	64	21	36	226
	226	226	226	226	226

6.4 8-Blocks

In order to construct 8-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 128 in eight parts giving equal sums.

Distribution 6.4. *Let's distribute the numbers 1 to 128 in eight parts giving equal sums*

A1	1	16	17	32	33	48	49	64	65	80	81	96	97	112	113	128	1032
A2	2	15	18	31	34	47	50	63	66	79	82	95	98	111	114	127	1032
A3	3	14	19	30	35	46	51	62	67	78	83	94	99	110	115	126	1032
A4	4	13	20	29	36	45	52	61	68	77	84	93	100	109	116	125	1032
A5	5	12	21	28	37	44	53	60	69	76	85	92	101	108	117	124	1032
A6	6	11	22	27	38	43	54	59	70	75	86	91	102	107	118	123	1032
A7	7	10	23	26	39	42	55	58	71	74	87	90	103	106	119	122	1032
A8	8	9	24	25	40	41	56	57	72	73	88	89	104	105	120	121	1032

According to above eight rows A1 to A8, the example below give 8 magic squares of equal magic sums.

Example 6.4. *Applying the values given in Distribution 6.4 over the magic square of order 4 given in Example 1.1, we get following eight magic squares of equal magic sums:*

A1		258	258	258	258
	1	64	97	96	258
258	112	81	16	49	258
258	32	33	128	65	258
258	113	80	17	48	258
	258	258	258	258	258

A2		258	258	258	258
	2	63	98	95	258
258	111	82	15	50	258
258	31	34	127	66	258
258	114	79	18	47	258
	258	258	258	258	258

A3		258	258	258	258
	3	62	99	94	258
258	110	83	14	51	258
258	30	35	126	67	258
258	115	78	19	46	258
	258	258	258	258	258

A4		258	258	258	258
	4	61	100	93	258
258	109	84	13	52	258
258	29	36	125	68	258
258	116	77	20	45	258
	258	258	258	258	258

A5		258	258	258	258
	5	60	101	92	258
258	108	85	12	53	258
258	28	37	124	69	258
258	117	76	21	44	258
	258	258	258	258	258

A6		258	258	258	258
	6	59	102	91	258
258	107	86	11	54	258
258	27	38	123	70	258
258	118	75	22	43	258
	258	258	258	258	258

A7		258	258	258	258
	7	58	103	90	258
258	106	87	10	55	258
258	26	39	122	71	258
258	119	74	23	42	258
	258	258	258	258	258

A8		258	258	258	258
	8	57	104	89	258
258	105	88	9	56	258
258	25	40	121	72	258
258	120	73	24	41	258
	258	258	258	258	258

6.5 9-Blocks

In order to construct 9-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 144 in nine parts giving equal sums.

Distribution 6.5. *Let's distribute the numbers 1 to 144 in nine parts giving equal sums:*

A1	1	18	19	36	37	54	55	72	73	90	91	108	109	126	127	144	1160
A2	2	17	20	35	38	53	56	71	74	89	92	107	110	125	128	143	1160
A3	3	16	21	34	39	52	57	70	75	88	93	106	111	124	129	142	1160
A4	4	15	22	33	40	51	58	69	76	87	94	105	112	123	130	141	1160
A5	5	14	23	32	41	50	59	68	77	86	95	104	113	122	131	140	1160
A6	6	13	24	31	42	49	60	67	78	85	96	103	114	121	132	139	1160
A7	7	12	25	30	43	48	61	66	79	84	97	102	115	120	133	138	1160
A8	8	11	26	29	44	47	62	65	80	83	98	101	116	119	134	137	1160
A9	9	10	27	28	45	46	63	64	81	82	99	100	117	118	135	136	1160

According to above eight rows A1 to A9, the example below give 5 magic squares of equal magic sums.

Example 6.5. *Applying the values given in Distribution 6.5 over the magic square of order 4 given in Example 1.1, we get following nine magic squares of equal magic sums:*

A1		290	290	290	290
	1	72	109	108	290
290	126	91	18	55	290
290	36	37	144	73	290
290	127	90	19	54	290
	290	290	290	290	290

A2		290	290	290	290
	2	71	110	107	290
290	125	92	17	56	290
290	35	38	143	74	290
290	128	89	20	53	290
	290	290	290	290	290

A3		290	290	290	290
	3	70	111	106	290
290	124	93	16	57	290
290	34	39	142	75	290
290	129	88	21	52	290
	290	290	290	290	290

A4		290	290	290	290
	4	69	112	105	290
290	123	94	15	58	290
290	33	40	141	76	290
290	130	87	22	51	290
	290	290	290	290	290

A5		290	290	290	290
	5	68	113	104	290
290	122	95	14	59	290
290	32	41	140	77	290
290	131	86	23	50	290
	290	290	290	290	290

A6		290	290	290	290
	6	67	114	103	290
290	121	96	13	60	290
290	31	42	139	78	290
290	132	85	24	49	290
	290	290	290	290	290

A7		290	290	290	290
	7	66	115	102	290
290	120	97	12	61	290
290	30	43	138	79	290
290	133	84	25	48	290
	290	290	290	290	290

A8		290	290	290	290
	8	65	116	101	290
290	119	98	11	62	290
290	29	44	137	80	290
290	134	83	26	47	290
	290	290	290	290	290

A9		290	290	290	290
	9	64	117	100	290
290	118	99	10	63	290
290	28	45	136	81	290
290	135	82	27	46	290
	290	290	290	290	290

6.6 10-Blocks

In order to construct 10-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 160 in ten parts giving equal sums.

Distribution 6.6. *Let's distribute the numbers 1 to 160 in ten parts giving equal sums:*

A1	1	20	21	40	41	60	61	80	81	100	101	120	121	140	141	160	1288
A2	2	19	22	39	42	59	62	79	82	99	102	119	122	139	142	159	1288
A3	3	18	23	38	43	58	63	78	83	98	103	118	123	138	143	158	1288
A4	4	17	24	37	44	57	64	77	84	97	104	117	124	137	144	157	1288
A5	5	16	25	36	45	56	65	76	85	96	105	116	125	136	145	156	1288
A6	6	15	26	35	46	55	66	75	86	95	106	115	126	135	146	155	1288
A7	7	14	27	34	47	54	67	74	87	94	107	114	127	134	147	154	1288
A8	8	13	28	33	48	53	68	73	88	93	108	113	128	133	148	153	1288
A9	9	12	29	32	49	52	69	72	89	92	109	112	129	132	149	152	1288
A10	10	11	30	31	50	51	70	71	90	91	110	111	130	131	150	151	1288

According to above eight rows A1 to A10, the example below give 10 magic squares of equal magic sums.

Example 6.6. *Applying the values given in Distribution 6.6 over the magic square of order 4 given in Example 1.1, we get following ten magic squares of equal magic sums:*

A1		322	322	322	322
	1	80	121	120	322
322	140	101	20	61	322
322	40	41	160	81	322
322	141	100	21	60	322
	322	322	322	322	322

A2		322	322	322	322
	2	79	122	119	322
322	139	102	19	62	322
322	39	42	159	82	322
322	142	99	22	59	322
	322	322	322	322	322

A3		322	322	322	322
	3	78	123	118	322
322	138	103	18	63	322
322	38	43	158	83	322
322	143	98	23	58	322
	322	322	322	322	322

A4		322	322	322	322
	4	77	124	117	322
322	137	104	17	64	322
322	37	44	157	84	322
322	144	97	24	57	322
	322	322	322	322	322

A5		322	322	322	322
	5	76	125	116	322
322	136	105	16	65	322
322	36	45	156	85	322
322	145	96	25	56	322
	322	322	322	322	322

A6		322	322	322	322
	6	75	126	115	322
322	135	106	15	66	322
322	35	46	155	86	322
322	146	95	26	55	322
	322	322	322	322	322

A7		322	322	322	322
	7	74	127	114	322
322	134	107	14	67	322
322	34	47	154	87	322
322	147	94	27	54	322
	322	322	322	322	322

A8		322	322	322	322
	8	73	128	113	322
322	133	108	13	68	322
322	33	48	153	88	322
322	148	93	28	53	322
	322	322	322	322	322

A9		322	322	322	322
	9	72	129	112	322
322	132	109	12	69	322
322	32	49	152	89	322
322	149	92	29	52	322
	322	322	322	322	322

A10		322	322	322	322
	10	71	130	111	322
322	131	110	11	70	322
322	31	50	151	90	322
322	150	91	30	51	322
	322	322	322	322	322

6.7 11-Blocks

In order to construct 11-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 176 in eleven parts giving equal sums.

Distribution 6.7. *Let's distribute the numbers 1 to 176 in eleven parts giving equal sums:*

A1	1	22	23	44	45	66	67	88	89	110	111	132	133	154	155	176	1416
A2	2	21	24	43	46	65	68	87	90	109	112	131	134	153	156	175	1416
A3	3	20	25	42	47	64	69	86	91	108	113	130	135	152	157	174	1416
A4	4	19	26	41	48	63	70	85	92	107	114	129	136	151	158	173	1416
A5	5	18	27	40	49	62	71	84	93	106	115	128	137	150	159	172	1416
A6	6	17	28	39	50	61	72	83	94	105	116	127	138	149	160	171	1416
A7	7	16	29	38	51	60	73	82	95	104	117	126	139	148	161	170	1416
A8	8	15	30	37	52	59	74	81	96	103	118	125	140	147	162	169	1416
A9	9	14	31	36	53	58	75	80	97	102	119	124	141	146	163	168	1416
A10	10	13	32	35	54	57	76	79	98	101	120	123	142	145	164	167	1416
A11	11	12	33	34	55	56	77	78	99	100	121	122	143	144	165	166	1416

According to above eight rows A1 to A11, the example below give 11 magic squares of equal magic sums.

Example 6.7. *Applying the values given in Distribution 6.7 over the magic square of order 4 given in Example 1.1, we get following eleven magic squares of equal magic sums:*

A1		354	354	354	354
	1	88	133	132	354
354	154	111	22	67	354
354	44	45	176	89	354
354	155	110	23	66	354
	354	354	354	354	354

A2		354	354	354	354
	2	87	134	131	354
354	153	112	21	68	354
354	43	46	175	90	354
354	156	109	24	65	354
	354	354	354	354	354

A3		354	354	354	354
	3	86	135	130	354
354	152	113	20	69	354
354	42	47	174	91	354
354	157	108	25	64	354
	354	354	354	354	354

A4		354	354	354	354
	4	85	136	129	354
354	151	114	19	70	354
354	41	48	173	92	354
354	158	107	26	63	354
	354	354	354	354	354

A5		354	354	354	354
	5	84	137	128	354
354	150	115	18	71	354
354	40	49	172	93	354
354	159	106	27	62	354
	354	354	354	354	354

A6		354	354	354	354
	6	83	138	127	354
354	149	116	17	72	354
354	39	50	171	94	354
354	160	105	28	61	354
	354	354	354	354	354

A7		354	354	354	354
	7	82	139	126	354
354	148	117	16	73	354
354	38	51	170	95	354
354	161	104	29	60	354
	354	354	354	354	354

A8		354	354	354	354
	8	81	140	125	354
354	147	118	15	74	354
354	37	52	169	96	354
354	162	103	30	59	354
	354	354	354	354	354

A9		354	354	354	354
	9	80	141	124	354
354	146	119	14	75	354
354	36	53	168	97	354
354	163	102	31	58	354
	354	354	354	354	354

A10		354	354	354	354
	10	79	142	123	354
354	145	120	13	76	354
354	35	54	167	98	354
354	164	101	32	57	354
	354	354	354	354	354

A11		354	354	354	354
	11	78	143	122	354
354	144	121	12	77	354
354	34	55	166	99	354
354	165	100	33	56	354
	354	354	354	354	354

6.8 12-Blocks

In order to construct 12-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 192 in 12 parts giving equal sums.

Distribution 6.8. *Let's distribute the numbers 1 to 192 in 12 parts giving equal sums:*

A1	1	24	25	48	49	72	73	96	97	120	121	144	145	168	169	192	1544
A2	2	23	26	47	50	71	74	95	98	119	122	143	146	167	170	191	1544
A3	3	22	27	46	51	70	75	94	99	118	123	142	147	166	171	190	1544
A4	4	21	28	45	52	69	76	93	100	117	124	141	148	165	172	189	1544
A5	5	20	29	44	53	68	77	92	101	116	125	140	149	164	173	188	1544
A6	6	19	30	43	54	67	78	91	102	115	126	139	150	163	174	187	1544
A7	7	18	31	42	55	66	79	90	103	114	127	138	151	162	175	186	1544
A8	8	17	32	41	56	65	80	89	104	113	128	137	152	161	176	185	1544
A9	9	16	33	40	57	64	81	88	105	112	129	136	153	160	177	184	1544
A10	10	15	34	39	58	63	82	87	106	111	130	135	154	159	178	183	1544
A11	11	14	35	38	59	62	83	86	107	110	131	134	155	158	179	182	1544
A12	12	13	36	37	60	61	84	85	108	109	132	133	156	157	180	181	1544

According to above eight rows A1 to A12, the example below give 12 magic squares of equal magic sums.

Example 6.8. *Applying the values given in Distribution 6.8 over the magic square of order 4 given in Example 1.1, we get following 12 magic squares of equal magic sums:*

A1		386	386	386	386
	1	96	145	144	386
386	168	121	24	73	386
386	48	49	192	97	386
386	169	120	25	72	386
	386	386	386	386	386

A2		386	386	386	386
	2	95	146	143	386
386	167	122	23	74	386
386	47	50	191	98	386
386	170	119	26	71	386
	386	386	386	386	386

A3		386	386	386	386
	3	94	147	142	386
386	166	123	22	75	386
386	46	51	190	99	386
386	171	118	27	70	386
	386	386	386	386	386

A4		386	386	386	386
	4	93	148	141	386
386	165	124	21	76	386
386	45	52	189	100	386
386	172	117	28	69	386
	386	386	386	386	386

A5		386	386	386	386
	5	92	149	140	386
386	164	125	20	77	386
386	44	53	188	101	386
386	173	116	29	68	386
	386	386	386	386	386

A6		386	386	386	386
	6	91	150	139	386
386	163	126	19	78	386
386	43	54	187	102	386
386	174	115	30	67	386
	386	386	386	386	386

A7		386	386	386	386
	7	90	151	138	386
386	162	127	18	79	386
386	42	55	186	103	386
386	175	114	31	66	386
	386	386	386	386	386

A8		386	386	386	386
	8	89	152	137	386
386	161	128	17	80	386
386	41	56	185	104	386
386	176	113	32	65	386
	386	386	386	386	386

A9		386	386	386	386
	9	88	153	136	386
386	160	129	16	81	386
386	40	57	184	105	386
386	177	112	33	64	386
	386	386	386	386	386

A10		386	386	386	386
	10	87	154	135	386
386	159	130	15	82	386
386	39	58	183	106	386
386	178	111	34	63	386
	386	386	386	386	386

A11		386	386	386	386
	11	86	155	134	386
386	158	131	14	83	386
386	38	59	182	107	386
386	179	110	35	62	386
	386	386	386	386	386

A12		386	386	386	386
	12	85	156	133	386
386	157	132	13	84	386
386	37	60	181	108	386
386	180	109	36	61	386
	386	386	386	386	386

6.9 13-Blocks

In order to construct 13-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 208 in 13 parts giving equal sums.

Distribution 6.9. *Let's distribute the numbers 1 to 208 in 13 parts giving equal sums:*

A1	1	26	27	52	53	78	79	104	105	130	131	156	157	182	183	208	1672
A2	2	25	28	51	54	77	80	103	106	129	132	155	158	181	184	207	1672
A3	3	24	29	50	55	76	81	102	107	128	133	154	159	180	185	206	1672
A4	4	23	30	49	56	75	82	101	108	127	134	153	160	179	186	205	1672
A5	5	22	31	48	57	74	83	100	109	126	135	152	161	178	187	204	1672
A6	6	21	32	47	58	73	84	99	110	125	136	151	162	177	188	203	1672
A7	7	20	33	46	59	72	85	98	111	124	137	150	163	176	189	202	1672
A8	8	19	34	45	60	71	86	97	112	123	138	149	164	175	190	201	1672
A9	9	18	35	44	61	70	87	96	113	122	139	148	165	174	191	200	1672
A10	10	17	36	43	62	69	88	95	114	121	140	147	166	173	192	199	1672
A11	11	16	37	42	63	68	89	94	115	120	141	146	167	172	193	198	1672
A12	12	15	38	41	64	67	90	93	116	119	142	145	168	171	194	197	1672
A13	13	14	39	40	65	66	91	92	117	118	143	144	169	170	195	196	1672

According to above eight rows A1 to A13, the example below give 13 magic squares of equal magic sums.

Example 6.9. *Applying the values given in Distribution 6.9 over the magic square of order 4 given in Example 1.1, we get following 13 magic squares of equal magic sums:*

A1		418	418	418	418
	1	104	157	156	418
418	182	131	26	79	418
418	52	53	208	105	418
418	183	130	27	78	418
	418	418	418	418	418

A2		418	418	418	418
	2	103	158	155	418
418	181	132	25	80	418
418	51	54	207	106	418
418	184	129	28	77	418
	418	418	418	418	418

A3		418	418	418	418
	3	102	159	154	418
418	180	133	24	81	418
418	50	55	206	107	418
418	185	128	29	76	418
	418	418	418	418	418

A4		418	418	418	418
	4	101	160	153	418
418	179	134	23	82	418
418	49	56	205	108	418
418	186	127	30	75	418
	418	418	418	418	418

A5		418	418	418	418
	5	100	161	152	418
418	178	135	22	83	418
418	48	57	204	109	418
418	187	126	31	74	418
	418	418	418	418	418

A6		418	418	418	418
	6	99	162	151	418
418	177	136	21	84	418
418	47	58	203	110	418
418	188	125	32	73	418
	418	418	418	418	418

A7		418	418	418	418
	7	98	163	150	418
418	176	137	20	85	418
418	46	59	202	111	418
418	189	124	33	72	418
	418	418	418	418	418

A8		418	418	418	418
	8	97	164	149	418
418	175	138	19	86	418
418	45	60	201	112	418
418	190	123	34	71	418
	418	418	418	418	418

A9		418	418	418	418
	9	96	165	148	418
418	174	139	18	87	418
418	44	61	200	113	418
418	191	122	35	70	418
	418	418	418	418	418

A10		418	418	418	418
	10	95	166	147	418
418	173	140	17	88	418
418	43	62	199	114	418
418	192	121	36	69	418
	418	418	418	418	418

A11		418	418	418	418
	11	94	167	146	418
418	172	141	16	89	418
418	42	63	198	115	418
418	193	120	37	68	418
	418	418	418	418	418

A12		418	418	418	418
	12	93	168	145	418
418	171	142	15	90	418
418	41	64	197	116	418
418	194	119	38	67	418
	418	418	418	418	418

A13		418	418	418	418
	13	92	169	144	418
418	170	143	14	91	418
418	40	65	196	117	418
418	195	118	39	66	418
	418	418	418	418	418

6.10 14-Blocks

In order to construct 14-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 224 in 14 parts giving equal sums.

Distribution 6.10. *Let's distribute the numbers 1 to 224 in 14 parts giving equal sums:*

A1	1	28	29	56	57	84	85	112	113	140	141	168	169	196	197	224	1800
A2	2	27	30	55	58	83	86	111	114	139	142	167	170	195	198	223	1800
A3	3	26	31	54	59	82	87	110	115	138	143	166	171	194	199	222	1800
A4	4	25	32	53	60	81	88	109	116	137	144	165	172	193	200	221	1800
A5	5	24	33	52	61	80	89	108	117	136	145	164	173	192	201	220	1800
A6	6	23	34	51	62	79	90	107	118	135	146	163	174	191	202	219	1800
A7	7	22	35	50	63	78	91	106	119	134	147	162	175	190	203	218	1800
A8	8	21	36	49	64	77	92	105	120	133	148	161	176	189	204	217	1800
A9	9	20	37	48	65	76	93	104	121	132	149	160	177	188	205	216	1800
A10	10	19	38	47	66	75	94	103	122	131	150	159	178	187	206	215	1800
A11	11	18	39	46	67	74	95	102	123	130	151	158	179	186	207	214	1800
A12	12	17	40	45	68	73	96	101	124	129	152	157	180	185	208	213	1800
A13	13	16	41	44	69	72	97	100	125	128	153	156	181	184	209	212	1800
A14	14	15	42	43	70	71	98	99	126	127	154	155	182	183	210	211	1800

According to above eight rows A1 to A14, the example below give 14 magic squares of equal magic sums.

Example 6.10. *Applying the values given in Distribution 6.10 over the magic square of order 4 given in Example 1.1, we get following 14 magic squares of equal magic sums:*

A1		450	450	450	450
	1	112	169	168	450
450	196	141	28	85	450
450	56	57	224	113	450
450	197	140	29	84	450
	450	450	450	450	450

A2		450	450	450	450
	2	111	170	167	450
450	195	142	27	86	450
450	55	58	223	114	450
450	198	139	30	83	450
	450	450	450	450	450

A3		450	450	450	450
	3	110	171	166	450
450	194	143	26	87	450
450	54	59	222	115	450
450	199	138	31	82	450
	450	450	450	450	450

A4		450	450	450	450
	4	109	172	165	450
450	193	144	25	88	450
450	53	60	221	116	450
450	200	137	32	81	450
	450	450	450	450	450

A5		450	450	450	450
	5	108	173	164	450
450	192	145	24	89	450
450	52	61	220	117	450
450	201	136	33	80	450
	450	450	450	450	450

A6		450	450	450	450
	6	107	174	163	450
450	191	146	23	90	450
450	51	62	219	118	450
450	202	135	34	79	450
	450	450	450	450	450

A7		450	450	450	450
	7	106	175	162	450
450	190	147	22	91	450
450	50	63	218	119	450
450	203	134	35	78	450
	450	450	450	450	450

A8		450	450	450	450
	8	105	176	161	450
450	189	148	21	92	450
450	49	64	217	120	450
450	204	133	36	77	450
	450	450	450	450	450

A9		450	450	450	450
	9	104	177	160	450
450	188	149	20	93	450
450	48	65	216	121	450
450	205	132	37	76	450
	450	450	450	450	450

A10		450	450	450	450
	10	103	178	159	450
450	187	150	19	94	450
450	47	66	215	122	450
450	206	131	38	75	450
	450	450	450	450	450

A11		450	450	450	450
	11	102	179	158	450
450	186	151	18	95	450
450	46	67	214	123	450
450	207	130	39	74	450
	450	450	450	450	450

A12		450	450	450	450
	12	101	180	157	450
450	185	152	17	96	450
450	45	68	213	124	450
450	208	129	40	73	450
	450	450	450	450	450

A13		450	450	450	450
	13	100	181	156	450
450	184	153	16	97	450
450	44	69	212	125	450
450	209	128	41	72	450
	450	450	450	450	450

A14		450	450	450	450
	14	99	182	155	450
450	183	154	15	98	450
450	43	70	211	126	450
450	210	127	42	71	450
	450	450	450	450	450

6.11 15-Blocks

In order to construct 15-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 240 in 15 parts giving equal sums.

Distribution 6.11. *Let's distribute the numbers 1 to 240 in 15 parts giving equal sums:*

A1	1	30	31	60	61	90	91	120	121	150	151	180	181	210	211	240	1928
A2	2	29	32	59	62	89	92	119	122	149	152	179	182	209	212	239	1928
A3	3	28	33	58	63	88	93	118	123	148	153	178	183	208	213	238	1928
A4	4	27	34	57	64	87	94	117	124	147	154	177	184	207	214	237	1928
A5	5	26	35	56	65	86	95	116	125	146	155	176	185	206	215	236	1928
A6	6	25	36	55	66	85	96	115	126	145	156	175	186	205	216	235	1928
A7	7	24	37	54	67	84	97	114	127	144	157	174	187	204	217	234	1928
A8	8	23	38	53	68	83	98	113	128	143	158	173	188	203	218	233	1928
A9	9	22	39	52	69	82	99	112	129	142	159	172	189	202	219	232	1928
A10	10	21	40	51	70	81	100	111	130	141	160	171	190	201	220	231	1928
A11	11	20	41	50	71	80	101	110	131	140	161	170	191	200	221	230	1928
A12	12	19	42	49	72	79	102	109	132	139	162	169	192	199	222	229	1928
A13	13	18	43	48	73	78	103	108	133	138	163	168	193	198	223	228	1928
A14	14	17	44	47	74	77	104	107	134	137	164	167	194	197	224	227	1928
A15	15	16	45	46	75	76	105	106	135	136	165	166	195	196	225	226	1928

According to above eight rows A1 to A15, the example below give 15 magic squares of equal magic sums.

Example 6.11. *Applying the values given in Distribution 6.11 over the magic square of order 4 given in Example 1.1, we get following 15 magic squares of equal magic sums:*

A1		482	482	482	482
	1	120	181	180	482
482	210	151	30	91	482
482	60	61	240	121	482
482	211	150	31	90	482
	482	482	482	482	482

A2		482	482	482	482
	2	119	182	179	482
482	209	152	29	92	482
482	59	62	239	122	482
482	212	149	32	89	482
	482	482	482	482	482

A3		482	482	482	482
	3	118	183	178	482
482	208	153	28	93	482
482	58	63	238	123	482
482	213	148	33	88	482
	482	482	482	482	482

A4		482	482	482	482
	4	117	184	177	482
482	207	154	27	94	482
482	57	64	237	124	482
482	214	147	34	87	482
	482	482	482	482	482

A5		482	482	482	482
	5	116	185	176	482
482	206	155	26	95	482
482	56	65	236	125	482
482	215	146	35	86	482
	482	482	482	482	482

A6		482	482	482	482
	6	115	186	175	482
482	205	156	25	96	482
482	55	66	235	126	482
482	216	145	36	85	482
	482	482	482	482	482

A7		482	482	482	482
	7	114	187	174	482
482	204	157	24	97	482
482	54	67	234	127	482
482	217	144	37	84	482
	482	482	482	482	482

A8		482	482	482	482
	8	113	188	173	482
482	203	158	23	98	482
482	53	68	233	128	482
482	218	143	38	83	482
	482	482	482	482	482

A9		482	482	482	482
	9	112	189	172	482
482	202	159	22	99	482
482	52	69	232	129	482
482	219	142	39	82	482
	482	482	482	482	482

A10		482	482	482	482
	10	111	190	171	482
482	201	160	21	100	482
482	51	70	231	130	482
482	220	141	40	81	482
	482	482	482	482	482

A11		482	482	482	482
	11	110	191	170	482
482	200	161	20	101	482
482	50	71	230	131	482
482	221	140	41	80	482
	482	482	482	482	482

A12		482	482	482	482
	12	109	192	169	482
482	199	162	19	102	482
482	49	72	229	132	482
482	222	139	42	79	482
	482	482	482	482	482

A13		482	482	482	482
	13	108	193	168	482
482	198	163	18	103	482
482	48	73	228	133	482
482	223	138	43	78	482
	482	482	482	482	482

A14		482	482	482	482
	14	107	194	167	482
482	197	164	17	104	482
482	47	74	227	134	482
482	224	137	44	77	482
	482	482	482	482	482

A15		482	482	482	482
	15	106	195	166	482
482	196	165	16	105	482
482	46	75	226	135	482
482	225	136	45	76	482
	482	482	482	482	482

6.12 16-Blocks

In order to construct 16-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 256 in 16 parts giving equal sums.

Distribution 6.12. *Let's distribute the numbers 1 to 256 in 16 parts giving equal sums:*

A1	1	32	33	64	65	96	97	128	129	160	161	192	193	224	225	256	2056
A2	2	31	34	63	66	95	98	127	130	159	162	191	194	223	226	255	2056
A3	3	30	35	62	67	94	99	126	131	158	163	190	195	222	227	254	2056
A4	4	29	36	61	68	93	100	125	132	157	164	189	196	221	228	253	2056
A5	5	28	37	60	69	92	101	124	133	156	165	188	197	220	229	252	2056
A6	6	27	38	59	70	91	102	123	134	155	166	187	198	219	230	251	2056
A7	7	26	39	58	71	90	103	122	135	154	167	186	199	218	231	250	2056
A8	8	25	40	57	72	89	104	121	136	153	168	185	200	217	232	249	2056
A9	9	24	41	56	73	88	105	120	137	152	169	184	201	216	233	248	2056
A10	10	23	42	55	74	87	106	119	138	151	170	183	202	215	234	247	2056
A11	11	22	43	54	75	86	107	118	139	150	171	182	203	214	235	246	2056
A12	12	21	44	53	76	85	108	117	140	149	172	181	204	213	236	245	2056
A13	13	20	45	52	77	84	109	116	141	148	173	180	205	212	237	244	2056
A14	14	19	46	51	78	83	110	115	142	147	174	179	206	211	238	243	2056
A15	15	18	47	50	79	82	111	114	143	146	175	178	207	210	239	242	2056
A16	16	17	48	49	80	81	112	113	144	145	176	177	208	209	240	241	2056

According to above eight rows A1 to A16, the example below give 16 magic squares of equal magic sums.

Example 6.12. *Applying the values given in Distribution 6.12 over the magic square of order 4 given in Example 1.1, we get following 16 magic squares of equal magic sums:*

A1		514	514	514	514
	1	128	193	192	514
514	224	161	32	97	514
514	64	65	256	129	514
514	225	160	33	96	514
	514	514	514	514	514

A2		514	514	514	514
	2	127	194	191	514
514	223	162	31	98	514
514	63	66	255	130	514
514	226	159	34	95	514
	514	514	514	514	514

A3		514	514	514	514
	3	126	195	190	514
514	222	163	30	99	514
514	62	67	254	131	514
514	227	158	35	94	514
	514	514	514	514	514

A4		514	514	514	514
	4	125	196	189	514
514	221	164	29	100	514
514	61	68	253	132	514
514	228	157	36	93	514
	514	514	514	514	514

A5		514	514	514	514
	5	124	197	188	514
514	220	165	28	101	514
514	60	69	252	133	514
514	229	156	37	92	514
	514	514	514	514	514

A6		514	514	514	514
	6	123	198	187	514
514	219	166	27	102	514
514	59	70	251	134	514
514	230	155	38	91	514
	514	514	514	514	514

A7		514	514	514	514
	7	122	199	186	514
514	218	167	26	103	514
514	58	71	250	135	514
514	231	154	39	90	514
	514	514	514	514	514

A8		514	514	514	514
	8	121	200	185	514
514	217	168	25	104	514
514	57	72	249	136	514
514	232	153	40	89	514
	514	514	514	514	514

A9		514	514	514	514
	9	120	201	184	514
514	216	169	24	105	514
514	56	73	248	137	514
514	233	152	41	88	514
	514	514	514	514	514

A10		514	514	514	514
	10	119	202	183	514
514	215	170	23	106	514
514	55	74	247	138	514
514	234	151	42	87	514
	514	514	514	514	514

A11		514	514	514	514
	11	118	203	182	514
514	214	171	22	107	514
514	54	75	246	139	514
514	235	150	43	86	514
	514	514	514	514	514

A12		514	514	514	514
	12	117	204	181	514
514	213	172	21	108	514
514	53	76	245	140	514
514	236	149	44	85	514
	514	514	514	514	514

A13		514	514	514	514
	13	116	205	180	514
514	212	173	20	109	514
514	52	77	244	141	514
514	237	148	45	84	514
	514	514	514	514	514

A14		514	514	514	514
	14	115	206	179	514
514	211	174	19	110	514
514	51	78	243	142	514
514	238	147	46	83	514
	514	514	514	514	514

A15		514	514	514	514
	15	114	207	178	514
514	210	175	18	111	514
514	50	79	242	143	514
514	239	146	47	82	514
	514	514	514	514	514

A16		514	514	514	514
	16	113	208	177	514
514	209	176	17	112	514
514	49	80	241	144	514
514	240	145	48	81	514
	514	514	514	514	514

6.13 17-Blocks

In order to construct 17-blocks of equal sum magic square of order 4 let's divide the numbers from 1 to 272 in 17 parts giving equal sums.

Distribution 6.13. *Let's distribute the numbers 1 to 272 in 17 parts giving equal sums:*

A1	1	34	35	68	69	102	103	136	137	170	171	204	205	238	239	272	2184
A2	2	33	36	67	70	101	104	135	138	169	172	203	206	237	240	271	2184
A3	3	32	37	66	71	100	105	134	139	168	173	202	207	236	241	270	2184
A4	4	31	38	65	72	99	106	133	140	167	174	201	208	235	242	269	2184
A5	5	30	39	64	73	98	107	132	141	166	175	200	209	234	243	268	2184
A6	6	29	40	63	74	97	108	131	142	165	176	199	210	233	244	267	2184
A7	7	28	41	62	75	96	109	130	143	164	177	198	211	232	245	266	2184
A8	8	27	42	61	76	95	110	129	144	163	178	197	212	231	246	265	2184
A9	9	26	43	60	77	94	111	128	145	162	179	196	213	230	247	264	2184
A10	10	25	44	59	78	93	112	127	146	161	180	195	214	229	248	263	2184
A11	11	24	45	58	79	92	113	126	147	160	181	194	215	228	249	262	2184
A12	12	23	46	57	80	91	114	125	148	159	182	193	216	227	250	261	2184
A13	13	22	47	56	81	90	115	124	149	158	183	192	217	226	251	260	2184
A14	14	21	48	55	82	89	116	123	150	157	184	191	218	225	252	259	2184
A15	15	20	49	54	83	88	117	122	151	156	185	190	219	224	253	258	2184
A16	16	19	50	53	84	87	118	121	152	155	186	189	220	223	254	257	2184
A17	17	18	51	52	85	86	119	120	153	154	187	188	221	222	255	256	2184

According to above eight rows A1 to A17, the example below give 17 magic squares of equal magic sums. Applying the values given in Distribution 6.13 over the magic square of order 4 given in Example 1.1, we get following 17 magic squares of equal magic sums:

Example 6.13. *Applying the values given in Distribution 6.13 over the magic square of order 4 given in Example 1.1, we get following 17 magic squares of equal magic sums:*

A1		546	546	546	546
	1	136	205	204	546
546	238	171	34	103	546
546	68	69	272	137	546
546	239	170	35	102	546
	546	546	546	546	546

A2		546	546	546	546
	2	135	206	203	546
546	237	172	33	104	546
546	67	70	271	138	546
546	240	169	36	101	546
	546	546	546	546	546

A3		546	546	546	546
	3	134	207	202	546
546	236	173	32	105	546
546	66	71	270	139	546
546	241	168	37	100	546
	546	546	546	546	546

A4		546	546	546	546
	4	133	208	201	546
546	235	174	31	106	546
546	65	72	269	140	546
546	242	167	38	99	546
	546	546	546	546	546

A5		546	546	546	546
	5	132	209	200	546
546	234	175	30	107	546
546	64	73	268	141	546
546	243	166	39	98	546
	546	546	546	546	546

A6		546	546	546	546
	6	131	210	199	546
546	233	176	29	108	546
546	63	74	267	142	546
546	244	165	40	97	546
	546	546	546	546	546

A7		546	546	546	546
	7	130	211	198	546
546	232	177	28	109	546
546	62	75	266	143	546
546	245	164	41	96	546
	546	546	546	546	546

A8		546	546	546	546
	8	129	212	197	546
546	231	178	27	110	546
546	61	76	265	144	546
546	246	163	42	95	546
	546	546	546	546	546

A9		546	546	546	546
	9	128	213	196	546
546	230	179	26	111	546
546	60	77	264	145	546
546	247	162	43	94	546
	546	546	546	546	546

A10		546	546	546	546
	10	127	214	195	546
546	229	180	25	112	546
546	59	78	263	146	546
546	248	161	44	93	546
	546	546	546	546	546

A11		546	546	546	546
	11	126	215	194	546
546	228	181	24	113	546
546	58	79	262	147	546
546	249	160	45	92	546
	546	546	546	546	546

A12		546	546	546	546
	12	125	216	193	546
546	227	182	23	114	546
546	57	80	261	148	546
546	250	159	46	91	546
	546	546	546	546	546

A13		546	546	546	546
	13	124	217	192	546
546	226	183	22	115	546
546	56	81	260	149	546
546	251	158	47	90	546
	546	546	546	546	546

A14		546	546	546	546
	14	123	218	191	546
546	225	184	21	116	546
546	55	82	259	150	546
546	252	157	48	89	546
	546	546	546	546	546

A15		546	546	546	546
	15	122	219	190	546
546	224	185	20	117	546
546	54	83	258	151	546
546	253	156	49	88	546
	546	546	546	546	546

A16		546	546	546	546
	16	121	220	189	546
546	223	186	19	118	546
546	53	84	257	152	546
546	254	155	50	87	546
	546	546	546	546	546

A17		546	546	546	546
	17	120	221	188	546
546	222	187	18	119	546
546	52	85	256	153	546
546	255	154	51	86	546
	546	546	546	546	546

6.14 Summary of Blocks Used

This work brings 26 letters from A to Z and 10 numbers from 0 to 9 in terms of blocks of magic squares of order 4. Letters and numbers ares constructed with blocks of equal sums magic square of order 4. The most of the letters and numbers constructed are with 5-blocks hight. The table below give an idea of block-wise construction of letters and numbers:

Consecutive Numbers	Number of Blocks	Equal Magic Sums of Order 4	Letters	Numbers
1-80	5	162	I	1
1-96	6	194		
1-112	7	226	I; L; T	7
1-128	8	258	F; J; Y	2; 3; 5
1-144	9	290	C; V; X; Z	4
1-160	10	322	D; E; G; K; P	
1-176	11	354	C; G; H; S; U	2; 3; 5
1-192	12	386	A; D; O; R	0; 6; 9
1-208	13	418	M; N; Q; W	8
1-224	14	450		
1-240	15	482	M; W	
1-256	16	514	B; G	
1-272	17	546	B	

By no way, we can say that the these are the only possible ways. These constructions can be done in different ways too.

7 Construction Procedure: Blocks of Magic Square of Order 6

This section brings construction of blocks of equal magic sums of magic squares of order 6. These blocks are already used in Sections 4 and ??

7.1 5-Blocks

Distribution 7.1. *Let's consider the following distribution of 180 numbers in 5 blocks of 36 each giving equal sums:*

	1	2	3	4	5	6	...	...	31	32	33	34	35	36	Total
A1	1	10	11	20	21	30	...	...	151	160	161	170	171	180	3258
A2	2	9	12	19	22	29	...	...	152	159	162	169	172	179	3258
A3	3	8	13	18	23	28	...	...	153	158	163	168	173	178	3258
A4	4	7	14	17	24	27	...	...	154	157	164	167	174	177	3258
A5	5	6	15	16	25	26	...	...	155	156	165	166	175	176	3258

Example 7.1. *Applying the values given in Distribution 7.1 over the magic square of order 6 given in Example 1.2, we get following 5 magic squares of order 6 with equal magic sums:*

A1						543
1	171	170	161	10	30	543
150	40	140	41	51	121	543
120	111	71	80	100	61	543
90	70	101	110	81	91	543
31	130	50	131	141	60	543
151	21	11	20	160	180	543
543	543	543	543	543	543	543

A2						543
2	172	169	162	9	29	543
149	39	139	42	52	122	543
119	112	72	79	99	62	543
89	69	102	109	82	92	543
32	129	49	132	142	59	543
152	22	12	19	159	179	543
543	543	543	543	543	543	543

A3						543
3	173	168	163	8	28	543
148	38	138	43	53	123	543
118	113	73	78	98	63	543
88	68	103	108	83	93	543
33	128	48	133	143	58	543
153	23	13	18	158	178	543
543	543	543	543	543	543	543

A4						543
4	174	167	164	7	27	543
147	37	137	44	54	124	543
117	114	74	77	97	64	543
87	67	104	107	84	94	543
34	127	47	134	144	57	543
154	24	14	17	157	177	543
543	543	543	543	543	543	543

A5						543
5	175	166	165	6	26	543
146	36	136	45	55	125	543
116	115	75	76	96	65	543
86	66	105	106	85	95	543
35	126	46	135	145	56	543
155	25	15	16	156	176	543
543	543	543	543	543	543	543

7.2 6-Blocks

Distribution 7.2. *Let's consider the following distribution of 216 numbers in 6 blocks of 36 each giving equal sums:*

	1	2	3	4	5	6	...	...	31	32	33	34	35	36	Total
A1	1	12	13	24	25	36	...	...	181	192	193	204	205	216	3906
A2	2	11	14	23	26	35	...	...	182	191	194	203	206	215	3906
A3	3	10	15	22	27	34	...	...	183	190	195	202	207	214	3906
A4	4	9	16	21	28	33	...	...	184	189	196	201	208	213	3906
A5	5	8	17	20	29	32	...	...	185	188	197	200	209	212	3906
A6	6	7	18	19	30	31	...	...	186	187	198	199	210	211	3906

Example 7.2. *Applying the values given in Distribution 7.2 over the magic square of order 6 given in Example 1.2, we get following 6 magic squares of order 6 with equal magic sums:*

A1						651
1	205	204	193	12	36	651
180	48	168	49	61	145	651
144	133	85	96	120	73	651
108	84	121	132	97	109	651
37	156	60	157	169	72	651
181	25	13	24	192	216	651
651	651	651	651	651	651	651

A2						651
2	206	203	194	11	35	651
179	47	167	50	62	146	651
143	134	86	95	119	74	651
107	83	122	131	98	110	651
38	155	59	158	170	71	651
182	26	14	23	191	215	651
651	651	651	651	651	651	651

A3						651
3	207	202	195	10	34	651
178	46	166	51	63	147	651
142	135	87	94	118	75	651
106	82	123	130	99	111	651
39	154	58	159	171	70	651
183	27	15	22	190	214	651
651	651	651	651	651	651	651

A4						651
4	208	201	196	9	33	651
177	45	165	52	64	148	651
141	136	88	93	117	76	651
105	81	124	129	100	112	651
40	153	57	160	172	69	651
184	28	16	21	189	213	651
651	651	651	651	651	651	651

A5						651
5	209	200	197	8	32	651
176	44	164	53	65	149	651
140	137	89	92	116	77	651
104	80	125	128	101	113	651
41	152	56	161	173	68	651
185	29	17	20	188	212	651
651	651	651	651	651	651	651

A6						651
6	210	199	198	7	31	651
175	43	163	54	66	150	651
139	138	90	91	115	78	651
103	79	126	127	102	114	651
42	151	55	162	174	67	651
186	30	18	19	187	211	651
651	651	651	651	651	651	651

7.3 7-Blocks

Distribution 7.3. *Let's consider the following distribution of 252 numbers in 6 blocks of 36 each giving equal sums:*

	1	2	3	4	5	6	...	...	31	32	33	34	35	36	Total
A1	1	14	15	28	29	42	...	...	211	224	225	238	239	252	4554
A2	2	13	16	27	30	41	...	...	212	223	226	237	240	251	4554
A3	3	12	17	26	31	40	...	...	213	222	227	236	241	250	4554
A4	4	11	18	25	32	39	...	...	214	221	228	235	242	249	4554
A5	5	10	19	24	33	38	...	...	215	220	229	234	243	248	4554
A6	6	9	20	23	34	37	...	...	216	219	230	233	244	247	4554
A7	7	8	21	22	35	36	...	...	217	218	231	232	245	246	4554

Example 7.3. *Applying the values given in Distribution 7.3 over the magic square of order 6 given in Example 1.2, we get following 6 magic squares of order 6 with equal magic sums:*

A1						759
1	239	238	225	14	42	759
210	56	196	57	71	169	759
168	155	99	112	140	85	759
126	98	141	154	113	127	759
43	182	70	183	197	84	759
211	29	15	28	224	252	759
759	759	759	759	759	759	759

A2						759
2	240	237	226	13	41	759
209	55	195	58	72	170	759
167	156	100	111	139	86	759
125	97	142	153	114	128	759
44	181	69	184	198	83	759
212	30	16	27	223	251	759
759	759	759	759	759	759	759

A3						759
3	241	236	227	12	40	759
208	54	194	59	73	171	759
166	157	101	110	138	87	759
124	96	143	152	115	129	759
45	180	68	185	199	82	759
213	31	17	26	222	250	759
759	759	759	759	759	759	759

A4						759
4	242	235	228	11	39	759
207	53	193	60	74	172	759
165	158	102	109	137	88	759
123	95	144	151	116	130	759
46	179	67	186	200	81	759
214	32	18	25	221	249	759
759	759	759	759	759	759	759

A5						759
5	243	234	229	10	38	759
206	52	192	61	75	173	759
164	159	103	108	136	89	759
122	94	145	150	117	131	759
47	178	66	187	201	80	759
215	33	19	24	220	248	759
759	759	759	759	759	759	759

A6						759
6	244	233	230	9	37	759
205	51	191	62	76	174	759
163	160	104	107	135	90	759
121	93	146	149	118	132	759
48	177	65	188	202	79	759
216	34	20	23	219	247	759
759	759	759	759	759	759	759

A7						759
7	245	232	231	8	36	759
204	50	190	63	77	175	759
162	161	105	106	134	91	759
120	92	147	148	119	133	759
49	176	64	189	203	78	759
217	35	21	22	218	246	759
759	759	759	759	759	759	759

7.4 8-Blocks

Distribution 7.4. *Let's consider the following distribution of 288 numbers in 8 blocks of 36 each giving equal sums:*

	1	2	3	4	5	6	...	...	31	32	33	34	35	36	Total
A1	1	16	17	32	33	48	...	...	241	256	257	272	273	288	5202
A2	2	15	18	31	34	47	...	...	242	255	258	271	274	287	5202
A3	3	14	19	30	35	46	...	...	243	254	259	270	275	286	5202
A4	4	13	20	29	36	45	...	...	244	253	260	269	276	285	5202
A5	5	12	21	28	37	44	...	...	245	252	261	268	277	284	5202
A6	6	11	22	27	38	43	...	...	246	251	262	267	278	283	5202
A7	7	10	23	26	39	42	...	...	247	250	263	266	279	282	5202
A8	8	9	24	25	40	41	...	...	248	249	264	265	280	281	5202

Example 7.4. *Applying the values given in Distribution 7.4 over the magic square of order 6 given in Example 1.2, we get following 6 magic squares of order 6 with equal magic sums:*

A1						867
1	273	272	257	16	48	867
240	64	224	65	81	193	867
192	177	113	128	160	97	867
144	112	161	176	129	145	867
49	208	80	209	225	96	867
241	33	17	32	256	288	867
867	867	867	867	867	867	867

A2						867
2	274	271	258	15	47	867
239	63	223	66	82	194	867
191	178	114	127	159	98	867
143	111	162	175	130	146	867
50	207	79	210	226	95	867
242	34	18	31	255	287	867
867	867	867	867	867	867	867

A3						867
3	275	270	259	14	46	867
238	62	222	67	83	195	867
190	179	115	126	158	99	867
142	110	163	174	131	147	867
51	206	78	211	227	94	867
243	35	19	30	254	286	867
867	867	867	867	867	867	867

A4						867
4	276	269	260	13	45	867
237	61	221	68	84	196	867
189	180	116	125	157	100	867
141	109	164	173	132	148	867
52	205	77	212	228	93	867
244	36	20	29	253	285	867
867	867	867	867	867	867	867

A5						867
5	277	268	261	12	44	867
236	60	220	69	85	197	867
188	181	117	124	156	101	867
140	108	165	172	133	149	867
53	204	76	213	229	92	867
245	37	21	28	252	284	867
867	867	867	867	867	867	867

A6						867
6	278	267	262	11	43	867
235	59	219	70	86	198	867
187	182	118	123	155	102	867
139	107	166	171	134	150	867
54	203	75	214	230	91	867
246	38	22	27	251	283	867
867	867	867	867	867	867	867

A7						867
7	279	266	263	10	42	867
234	58	218	71	87	199	867
186	183	119	122	154	103	867
138	106	167	170	135	151	867
55	202	74	215	231	90	867
247	39	23	26	250	282	867
867	867	867	867	867	867	867

A8						867
8	280	265	264	9	41	867
233	57	217	72	88	200	867
185	184	120	121	153	104	867
137	105	168	169	136	152	867
56	201	73	216	232	89	867
248	40	24	25	249	281	867
867	867	867	867	867	867	867

7.5 9-Blocks

Distribution 7.5. *Let's consider the following distribution of 324 numbers in 9 blocks of 36 each giving equal sums:*

	1	2	3	4	5	6	...	...	31	32	33	34	35	36	Total
A1	1	18	19	36	37	54	...	...	271	288	289	306	307	324	5850
A2	2	17	20	35	38	53	...	...	272	287	290	305	308	323	5850
A3	3	16	21	34	39	52	...	...	273	286	291	304	309	322	5850
A4	4	15	22	33	40	51	...	...	274	285	292	303	310	321	5850
A5	5	14	23	32	41	50	...	...	275	284	293	302	311	320	5850
A6	6	13	24	31	42	49	...	...	276	283	294	301	312	319	5850
A7	7	12	25	30	43	48	...	...	277	282	295	300	313	318	5850
A8	8	11	26	29	44	47	...	...	278	281	296	299	314	317	5850
A9	9	10	27	28	45	46	...	...	279	280	297	298	315	316	5850

Example 7.5. *Applying the values given in Distribution 7.5 over the magic square of order 6 given in Example 1.2, we get following 6 magic squares of order 6 with equal magic sums:*

A1						975
1	307	306	289	18	54	975
270	72	252	73	91	217	975
216	199	127	144	180	109	975
162	126	181	198	145	163	975
55	234	90	235	253	108	975
271	37	19	36	288	324	975
975	975	975	975	975	975	975

A2						975
2	308	305	290	17	53	975
269	71	251	74	92	218	975
215	200	128	143	179	110	975
161	125	182	197	146	164	975
56	233	89	236	254	107	975
272	38	20	35	287	323	975
975	975	975	975	975	975	975

A3						975
3	309	304	291	16	52	975
268	70	250	75	93	219	975
214	201	129	142	178	111	975
160	124	183	196	147	165	975
57	232	88	237	255	106	975
273	39	21	34	286	322	975
975	975	975	975	975	975	975

A4						975
4	310	303	292	15	51	975
267	69	249	76	94	220	975
213	202	130	141	177	112	975
159	123	184	195	148	166	975
58	231	87	238	256	105	975
274	40	22	33	285	321	975
975	975	975	975	975	975	975

A5						975
5	311	302	293	14	50	975
266	68	248	77	95	221	975
212	203	131	140	176	113	975
158	122	185	194	149	167	975
59	230	86	239	257	104	975
275	41	23	32	284	320	975
975	975	975	975	975	975	975

A6						975
6	312	301	294	13	49	975
265	67	247	78	96	222	975
211	204	132	139	175	114	975
157	121	186	193	150	168	975
60	229	85	240	258	103	975
276	42	24	31	283	319	975
975	975	975	975	975	975	975

A7						975
7	313	300	295	12	48	975
264	66	246	79	97	223	975
210	205	133	138	174	115	975
156	120	187	192	151	169	975
61	228	84	241	259	102	975
277	43	25	30	282	318	975
975	975	975	975	975	975	975

A8						975
8	314	299	296	11	47	975
263	65	245	80	98	224	975
209	206	134	137	173	116	975
155	119	188	191	152	170	975
62	227	83	242	260	101	975
278	44	26	29	281	317	975
975	975	975	975	975	975	975

A9						975
9	315	298	297	10	46	975
262	64	244	81	99	225	975
208	207	135	136	172	117	975
154	118	189	190	153	171	975
63	226	82	243	261	100	975
279	45	27	28	280	316	975
975	975	975	975	975	975	975

7.6 10-Blocks

Distribution 7.6. *Let's consider the following distribution of 360 numbers in 10 blocks of 36 each giving equal sums:*

	1	2	3	4	5	6	...	...	31	32	33	34	35	36	Total
A1	1	20	21	40	41	60	...	...	301	320	321	340	341	360	6498
A2	2	19	22	39	42	59	...	...	302	319	322	339	342	359	6498
A3	3	18	23	38	43	58	...	...	303	318	323	338	343	358	6498
A4	4	17	24	37	44	57	...	...	304	317	324	337	344	357	6498
A5	5	16	25	36	45	56	...	...	305	316	325	336	345	356	6498
A6	6	15	26	35	46	55	...	...	306	315	326	335	346	355	6498
A7	7	14	27	34	47	54	...	...	307	314	327	334	347	354	6498
A8	8	13	28	33	48	53	...	...	308	313	328	333	348	353	6498
A9	9	12	29	32	49	52	...	...	309	312	329	332	349	352	6498
A10	10	11	30	31	50	51	...	...	310	311	330	331	350	351	6498

Example 7.6. *Applying the values given in Distribution 7.6 over the magic square of order 6 given in Example 1.2, we get following 6 magic squares of order 6 with equal magic sums:*

A1						1083
1	341	340	321	20	60	1083
300	80	280	81	101	241	1083
240	221	141	160	200	121	1083
180	140	201	220	161	181	1083
61	260	100	261	281	120	1083
301	41	21	40	320	360	1083
1083	1083	1083	1083	1083	1083	1083

A2						1083
2	342	339	322	19	59	1083
299	79	279	82	102	242	1083
239	222	142	159	199	122	1083
179	139	202	219	162	182	1083
62	259	99	262	282	119	1083
302	42	22	39	319	359	1083
1083	1083	1083	1083	1083	1083	1083

A3						1083
3	343	338	323	18	58	1083
298	78	278	83	103	243	1083
238	223	143	158	198	123	1083
178	138	203	218	163	183	1083
63	258	98	263	283	118	1083
303	43	23	38	318	358	1083
1083	1083	1083	1083	1083	1083	1083

A4						1083
4	344	337	324	17	57	1083
297	77	277	84	104	244	1083
237	224	144	157	197	124	1083
177	137	204	217	164	184	1083
64	257	97	264	284	117	1083
304	44	24	37	317	357	1083
1083	1083	1083	1083	1083	1083	1083

A5						1083
5	345	336	325	16	56	1083
296	76	276	85	105	245	1083
236	225	145	156	196	125	1083
176	136	205	216	165	185	1083
65	256	96	265	285	116	1083
305	45	25	36	316	356	1083
1083	1083	1083	1083	1083	1083	1083

A6						1083
6	346	335	326	15	55	1083
295	75	275	86	106	246	1083
235	226	146	155	195	126	1083
175	135	206	215	166	186	1083
66	255	95	266	286	115	1083
306	46	26	35	315	355	1083
1083	1083	1083	1083	1083	1083	1083

A7						1083
7	347	334	327	14	54	1083
294	74	274	87	107	247	1083
234	227	147	154	194	127	1083
174	134	207	214	167	187	1083
67	254	94	267	287	114	1083
307	47	27	34	314	354	1083
1083	1083	1083	1083	1083	1083	1083

A8						1083
8	348	333	328	13	53	1083
293	73	273	88	108	248	1083
233	228	148	153	193	128	1083
173	133	208	213	168	188	1083
68	253	93	268	288	113	1083
308	48	28	33	313	353	1083
1083	1083	1083	1083	1083	1083	1083

A9						1083
9	349	332	329	12	52	1083
292	72	272	89	109	249	1083
232	229	149	152	192	129	1083
172	132	209	212	169	189	1083
69	252	92	269	289	112	1083
309	49	29	32	312	352	1083
1083	1083	1083	1083	1083	1083	1083

A10						1083
10	350	331	330	11	51	1083
291	71	271	90	110	250	1083
231	230	150	151	191	130	1083
171	131	210	211	170	190	1083
70	251	91	270	290	111	1083
310	50	30	31	311	351	1083
1083	1083	1083	1083	1083	1083	1083

7.7 11-Blocks

Distribution 7.7. *Let's consider the following distribution of 396 numbers in 11 blocks of 36 each giving equal sums:*

	1	2	3	4	5	6	...	...	31	32	33	34	35	36	Total
A1	1	22	23	44	45	66	...	...	331	352	353	374	375	396	7146
A2	2	21	24	43	46	65	...	...	332	351	354	373	376	395	7146
A3	3	20	25	42	47	64	...	...	333	350	355	372	377	394	7146
A4	4	19	26	41	48	63	...	...	334	349	356	371	378	393	7146
A5	5	18	27	40	49	62	...	...	335	348	357	370	379	392	7146
A6	6	17	28	39	50	61	...	...	336	347	358	369	380	391	7146
A7	7	16	29	38	51	60	...	...	337	346	359	368	381	390	7146
A8	8	15	30	37	52	59	...	...	338	345	360	367	382	389	7146
A9	9	14	31	36	53	58	...	...	339	344	361	366	383	388	7146
A10	10	13	32	35	54	57	...	...	340	343	362	365	384	387	7146
A11	11	12	33	34	55	56	...	...	341	342	363	364	385	386	7146

Example 7.7. *Applying the values given in Distribution 7.7 over the magic square of order 6 given in Example 1.2, we get following 6 magic squares of order 6 with equal magic sums:*

A1						1191
1	375	374	353	22	66	1191
330	88	308	89	111	265	1191
264	243	155	176	220	133	1191
198	154	221	242	177	199	1191
67	286	110	287	309	132	1191
331	45	23	44	352	396	1191
1191	1191	1191	1191	1191	1191	1191

A2						1191
2	376	373	354	21	65	1191
329	87	307	90	112	266	1191
263	244	156	175	219	134	1191
197	153	222	241	178	200	1191
68	285	109	288	310	131	1191
332	46	24	43	351	395	1191
1191	1191	1191	1191	1191	1191	1191

A3						1191
3	377	372	355	20	64	1191
328	86	306	91	113	267	1191
262	245	157	174	218	135	1191
196	152	223	240	179	201	1191
69	284	108	289	311	130	1191
333	47	25	42	350	394	1191
1191	1191	1191	1191	1191	1191	1191

A4						1191
4	378	371	356	19	63	1191
327	85	305	92	114	268	1191
261	246	158	173	217	136	1191
195	151	224	239	180	202	1191
70	283	107	290	312	129	1191
334	48	26	41	349	393	1191
1191	1191	1191	1191	1191	1191	1191

A5						1191
5	379	370	357	18	62	1191
326	84	304	93	115	269	1191
260	247	159	172	216	137	1191
194	150	225	238	181	203	1191
71	282	106	291	313	128	1191
335	49	27	40	348	392	1191
1191	1191	1191	1191	1191	1191	1191

A6						1191
6	380	369	358	17	61	1191
325	83	303	94	116	270	1191
259	248	160	171	215	138	1191
193	149	226	237	182	204	1191
72	281	105	292	314	127	1191
336	50	28	39	347	391	1191
1191	1191	1191	1191	1191	1191	1191

A7						1191
7	381	368	359	16	60	1191
324	82	302	95	117	271	1191
258	249	161	170	214	139	1191
192	148	227	236	183	205	1191
73	280	104	293	315	126	1191
337	51	29	38	346	390	1191
1191	1191	1191	1191	1191	1191	1191

A8						1191
8	382	367	360	15	59	1191
323	81	301	96	118	272	1191
257	250	162	169	213	140	1191
191	147	228	235	184	206	1191
74	279	103	294	316	125	1191
338	52	30	37	345	389	1191
1191	1191	1191	1191	1191	1191	1191

A9						1191
9	383	366	361	14	58	1191
322	80	300	97	119	273	1191
256	251	163	168	212	141	1191
190	146	229	234	185	207	1191
75	278	102	295	317	124	1191
339	53	31	36	344	388	1191
1191	1191	1191	1191	1191	1191	1191

A10						1191
10	384	365	362	13	57	1191
321	79	299	98	120	274	1191
255	252	164	167	211	142	1191
189	145	230	233	186	208	1191
76	277	101	296	318	123	1191
340	54	32	35	343	387	1191
1191	1191	1191	1191	1191	1191	1191

A11						1191
11	385	364	363	12	56	1191
320	78	298	99	121	275	1191
254	253	165	166	210	143	1191
188	144	231	232	187	209	1191
77	276	100	297	319	122	1191
341	55	33	34	342	386	1191
1191	1191	1191	1191	1191	1191	1191

7.8 12-Blocks

Distribution 7.8. *Let's consider the following distribution of 432 numbers in 12 blocks of 36 each giving equal sums:*

	1	2	3	4	5	6	...	...	31	32	33	34	35	36	Total
A1	1	24	25	48	49	72	...	...	361	384	385	408	409	432	7794
A2	2	23	26	47	50	71	...	...	362	383	386	407	410	431	7794
A3	3	22	27	46	51	70	...	...	363	382	387	406	411	430	7794
A4	4	21	28	45	52	69	...	...	364	381	388	405	412	429	7794
A5	5	20	29	44	53	68	...	...	365	380	389	404	413	428	7794
A6	6	19	30	43	54	67	...	...	366	379	390	403	414	427	7794
A7	7	18	31	42	55	66	...	...	367	378	391	402	415	426	7794
A8	8	17	32	41	56	65	...	...	368	377	392	401	416	425	7794
A9	9	16	33	40	57	64	...	...	369	376	393	400	417	424	7794
A10	10	15	34	39	58	63	...	...	370	375	394	399	418	423	7794
A11	11	14	35	38	59	62	...	...	371	374	395	398	419	422	7794
A12	12	13	36	37	60	61	...	...	372	373	396	397	420	421	7794

Example 7.8. *Applying the values given in Distribution 7.8 over the magic square of order 6 given in Example 1.2, we get following 6 magic squares of order 6 with equal magic sums:*

A1						1299
1	409	408	385	24	72	1299
360	96	336	97	121	289	1299
288	265	169	192	240	145	1299
216	168	241	264	193	217	1299
73	312	120	313	337	144	1299
361	49	25	48	384	432	1299
1299	1299	1299	1299	1299	1299	1299

A2						1299
2	410	407	386	23	71	1299
359	95	335	98	122	290	1299
287	266	170	191	239	146	1299
215	167	242	263	194	218	1299
74	311	119	314	338	143	1299
362	50	26	47	383	431	1299
1299	1299	1299	1299	1299	1299	1299

A3						1299
3	411	406	387	22	70	1299
358	94	334	99	123	291	1299
286	267	171	190	238	147	1299
214	166	243	262	195	219	1299
75	310	118	315	339	142	1299
363	51	27	46	382	430	1299
1299	1299	1299	1299	1299	1299	1299

A4						1299
4	412	405	388	21	69	1299
357	93	333	100	124	292	1299
285	268	172	189	237	148	1299
213	165	244	261	196	220	1299
76	309	117	316	340	141	1299
364	52	28	45	381	429	1299
1299	1299	1299	1299	1299	1299	1299

A5						1299
5	413	404	389	20	68	1299
356	92	332	101	125	293	1299
284	269	173	188	236	149	1299
212	164	245	260	197	221	1299
77	308	116	317	341	140	1299
365	53	29	44	380	428	1299
1299	1299	1299	1299	1299	1299	1299

A6						1299
6	414	403	390	19	67	1299
355	91	331	102	126	294	1299
283	270	174	187	235	150	1299
211	163	246	259	198	222	1299
78	307	115	318	342	139	1299
366	54	30	43	379	427	1299
1299	1299	1299	1299	1299	1299	1299

A7						1299
7	415	402	391	18	66	1299
354	90	330	103	127	295	1299
282	271	175	186	234	151	1299
210	162	247	258	199	223	1299
79	306	114	319	343	138	1299
367	55	31	42	378	426	1299
1299	1299	1299	1299	1299	1299	1299

A8						1299
8	416	401	392	17	65	1299
353	89	329	104	128	296	1299
281	272	176	185	233	152	1299
209	161	248	257	200	224	1299
80	305	113	320	344	137	1299
368	56	32	41	377	425	1299
1299	1299	1299	1299	1299	1299	1299

A9						1299
9	417	400	393	16	64	1299
352	88	328	105	129	297	1299
280	273	177	184	232	153	1299
208	160	249	256	201	225	1299
81	304	112	321	345	136	1299
369	57	33	40	376	424	1299
1299	1299	1299	1299	1299	1299	1299

A10						1299
10	418	399	394	15	63	1299
351	87	327	106	130	298	1299
279	274	178	183	231	154	1299
207	159	250	255	202	226	1299
82	303	111	322	346	135	1299
370	58	34	39	375	423	1299
1299	1299	1299	1299	1299	1299	1299

A11						1299
11	419	398	395	14	62	1299
350	86	326	107	131	299	1299
278	275	179	182	230	155	1299
206	158	251	254	203	227	1299
83	302	110	323	347	134	1299
371	59	35	38	374	422	1299
1299	1299	1299	1299	1299	1299	1299

A12						1299
12	420	397	396	13	61	1299
349	85	325	108	132	300	1299
277	276	180	181	229	156	1299
205	157	252	253	204	228	1299
84	301	109	324	348	133	1299
372	60	36	37	373	421	1299
1299	1299	1299	1299	1299	1299	1299

7.9 13-Blocks

Distribution 7.9. *Let's consider the following distribution of 468 numbers in 13 blocks of 36 each giving equal sums:*

	1	2	3	4	5	6	...	...	31	32	33	34	35	36	Total
A1	1	26	27	52	53	78	...	...	391	416	417	442	443	468	8442
A2	2	25	28	51	54	77	...	...	392	415	418	441	444	467	8442
A3	3	24	29	50	55	76	...	...	393	414	419	440	445	466	8442
A4	4	23	30	49	56	75	...	...	394	413	420	439	446	465	8442
A5	5	22	31	48	57	74	...	...	395	412	421	438	447	464	8442
A6	6	21	32	47	58	73	...	...	396	411	422	437	448	463	8442
A7	7	20	33	46	59	72	...	...	397	410	423	436	449	462	8442
A8	8	19	34	45	60	71	...	...	398	409	424	435	450	461	8442
A9	9	18	35	44	61	70	...	...	399	408	425	434	451	460	8442
A10	10	17	36	43	62	69	...	...	400	407	426	433	452	459	8442
A11	11	16	37	42	63	68	...	...	401	406	427	432	453	458	8442
A12	12	15	38	41	64	67	...	...	402	405	428	431	454	457	8442
A13	13	14	39	40	65	66	...	...	403	404	429	430	455	456	8442

Example 7.9. *Applying the values given in Distribution 7.9 over the magic square of order 6 given in Example 1.2, we get following 6 magic squares of order 6 with equal magic sums:*

A1						1407
1	443	442	417	26	78	1407
390	104	364	105	131	313	1407
312	287	183	208	260	157	1407
234	182	261	286	209	235	1407
79	338	130	339	365	156	1407
391	53	27	52	416	468	1407
1407	1407	1407	1407	1407	1407	1407

A2						1407
2	444	441	418	25	77	1407
389	103	363	106	132	314	1407
311	288	184	207	259	158	1407
233	181	262	285	210	236	1407
80	337	129	340	366	155	1407
392	54	28	51	415	467	1407
1407	1407	1407	1407	1407	1407	1407

A3						1407
3	445	440	419	24	76	1407
388	102	362	107	133	315	1407
310	289	185	206	258	159	1407
232	180	263	284	211	237	1407
81	336	128	341	367	154	1407
393	55	29	50	414	466	1407
1407	1407	1407	1407	1407	1407	1407

A4						1407
4	446	439	420	23	75	1407
387	101	361	108	134	316	1407
309	290	186	205	257	160	1407
231	179	264	283	212	238	1407
82	335	127	342	368	153	1407
394	56	30	49	413	465	1407
1407	1407	1407	1407	1407	1407	1407

A5						1407
5	447	438	421	22	74	1407
386	100	360	109	135	317	1407
308	291	187	204	256	161	1407
230	178	265	282	213	239	1407
83	334	126	343	369	152	1407
395	57	31	48	412	464	1407
1407	1407	1407	1407	1407	1407	1407

A6						1407
6	448	437	422	21	73	1407
385	99	359	110	136	318	1407
307	292	188	203	255	162	1407
229	177	266	281	214	240	1407
84	333	125	344	370	151	1407
396	58	32	47	411	463	1407
1407	1407	1407	1407	1407	1407	1407

A7						1407
7	449	436	423	20	72	1407
384	98	358	111	137	319	1407
306	293	189	202	254	163	1407
228	176	267	280	215	241	1407
85	332	124	345	371	150	1407
397	59	33	46	410	462	1407
1407	1407	1407	1407	1407	1407	1407

A8						1407
8	450	435	424	19	71	1407
383	97	357	112	138	320	1407
305	294	190	201	253	164	1407
227	175	268	279	216	242	1407
86	331	123	346	372	149	1407
398	60	34	45	409	461	1407
1407	1407	1407	1407	1407	1407	1407

A9						1407
9	451	434	425	18	70	1407
382	96	356	113	139	321	1407
304	295	191	200	252	165	1407
226	174	269	278	217	243	1407
87	330	122	347	373	148	1407
399	61	35	44	408	460	1407
1407	1407	1407	1407	1407	1407	1407

A10						1407
10	452	433	426	17	69	1407
381	95	355	114	140	322	1407
303	296	192	199	251	166	1407
225	173	270	277	218	244	1407
88	329	121	348	374	147	1407
400	62	36	43	407	459	1407
1407	1407	1407	1407	1407	1407	1407

A11						1407
11	453	432	427	16	68	1407
380	94	354	115	141	323	1407
302	297	193	198	250	167	1407
224	172	271	276	219	245	1407
89	328	120	349	375	146	1407
401	63	37	42	406	458	1407
1407	1407	1407	1407	1407	1407	1407

A12						1407
12	454	431	428	15	67	1407
379	93	353	116	142	324	1407
301	298	194	197	249	168	1407
223	171	272	275	220	246	1407
90	327	119	350	376	145	1407
402	64	38	41	405	457	1407
1407	1407	1407	1407	1407	1407	1407

A13						1407
13	455	430	429	14	66	1407
378	92	352	117	143	325	1407
300	299	195	196	248	169	1407
222	170	273	274	221	247	1407
91	326	118	351	377	144	1407
403	65	39	40	404	456	1407
1407	1407	1407	1407	1407	1407	1407

7.10 14-Blocks

Distribution 7.10. *Let's consider the following distribution of 504 numbers in 14 blocks of 36 each giving equal sums:*

	1	2	3	4	5	6	...	...	31	32	33	34	35	36	Total
A1	1	28	29	56	57	84	...	...	421	448	449	476	477	504	9090
A2	2	27	30	55	58	83	...	...	422	447	450	475	478	503	9090
A3	3	26	31	54	59	82	...	...	423	446	451	474	479	502	9090
A4	4	25	32	53	60	81	...	...	424	445	452	473	480	501	9090
A5	5	24	33	52	61	80	...	...	425	444	453	472	481	500	9090
A6	6	23	34	51	62	79	...	...	426	443	454	471	482	499	9090
A7	7	22	35	50	63	78	...	...	427	442	455	470	483	498	9090
A8	8	21	36	49	64	77	...	...	428	441	456	469	484	497	9090
A9	9	20	37	48	65	76	...	...	429	440	457	468	485	496	9090
A10	10	19	38	47	66	75	...	...	430	439	458	467	486	495	9090
A11	11	18	39	46	67	74	...	...	431	438	459	466	487	494	9090
A12	12	17	40	45	68	73	...	...	432	437	460	465	488	493	9090
A13	13	16	41	44	69	72	...	...	433	436	461	464	489	492	9090
A14	14	15	42	43	70	71	...	...	434	435	462	463	490	491	9090

Example 7.10. *Applying the values given in Distribution 7.10 over the magic square of order 6 given in Example 1.2, we get following 6 magic squares of order 6 with equal magic sums:*

A1						1515
1	477	476	449	28	84	1515
420	112	392	113	141	337	1515
336	309	197	224	280	169	1515
252	196	281	308	225	253	1515
85	364	140	365	393	168	1515
421	57	29	56	448	504	1515

A2						1515
2	478	475	450	27	83	1515
419	111	391	114	142	338	1515
335	310	198	223	279	170	1515
251	195	282	307	226	254	1515
86	363	139	366	394	167	1515
422	58	30	55	447	503	1515
1515	1515	1515	1515	1515	1515	1515

A3						1515
3	479	474	451	26	82	1515
418	110	390	115	143	339	1515
334	311	199	222	278	171	1515
250	194	283	306	227	255	1515
87	362	138	367	395	166	1515
423	59	31	54	446	502	1515
1515	1515	1515	1515	1515	1515	1515

A4						1515
4	480	473	452	25	81	1515
417	109	389	116	144	340	1515
333	312	200	221	277	172	1515
249	193	284	305	228	256	1515
88	361	137	368	396	165	1515
424	60	32	53	445	501	1515
1515	1515	1515	1515	1515	1515	1515

A5						1515
5	481	472	453	24	80	1515
416	108	388	117	145	341	1515
332	313	201	220	276	173	1515
248	192	285	304	229	257	1515
89	360	136	369	397	164	1515
425	61	33	52	444	500	1515
1515	1515	1515	1515	1515	1515	1515

A6						1515
6	482	471	454	23	79	1515
415	107	387	118	146	342	1515
331	314	202	219	275	174	1515
247	191	286	303	230	258	1515
90	359	135	370	398	163	1515
426	62	34	51	443	499	1515
1515	1515	1515	1515	1515	1515	1515

A7						1515
7	483	470	455	22	78	1515
414	106	386	119	147	343	1515
330	315	203	218	274	175	1515
246	190	287	302	231	259	1515
91	358	134	371	399	162	1515
427	63	35	50	442	498	1515
1515	1515	1515	1515	1515	1515	1515

A8						1515
8	484	469	456	21	77	1515
413	105	385	120	148	344	1515
329	316	204	217	273	176	1515
245	189	288	301	232	260	1515
92	357	133	372	400	161	1515
428	64	36	49	441	497	1515
1515	1515	1515	1515	1515	1515	1515

A9						1515
9	485	468	457	20	76	1515
412	104	384	121	149	345	1515
328	317	205	216	272	177	1515
244	188	289	300	233	261	1515
93	356	132	373	401	160	1515
429	65	37	48	440	496	1515
1515	1515	1515	1515	1515	1515	1515

A10						1515
10	486	467	458	19	75	1515
411	103	383	122	150	346	1515
327	318	206	215	271	178	1515
243	187	290	299	234	262	1515
94	355	131	374	402	159	1515
430	66	38	47	439	495	1515
1515	1515	1515	1515	1515	1515	1515

A11						1515
11	487	466	459	18	74	1515
410	102	382	123	151	347	1515
326	319	207	214	270	179	1515
242	186	291	298	235	263	1515
95	354	130	375	403	158	1515
431	67	39	46	438	494	1515
1515	1515	1515	1515	1515	1515	1515

A12						1515
12	488	465	460	17	73	1515
409	101	381	124	152	348	1515
325	320	208	213	269	180	1515
241	185	292	297	236	264	1515
96	353	129	376	404	157	1515
432	68	40	45	437	493	1515
1515	1515	1515	1515	1515	1515	1515

A13						1515
13	489	464	461	16	72	1515
408	100	380	125	153	349	1515
324	321	209	212	268	181	1515
240	184	293	296	237	265	1515
97	352	128	377	405	156	1515
433	69	41	44	436	492	1515
1515	1515	1515	1515	1515	1515	1515

A14						1515
14	490	463	462	15	71	1515
407	99	379	126	154	350	1515
323	322	210	211	267	182	1515
239	183	294	295	238	266	1515
98	351	127	378	406	155	1515
434	70	42	43	435	491	1515
1515	1515	1515	1515	1515	1515	1515

7.11 15-Blocks

Distribution 7.11. *Let's consider the following distribution of 540 numbers in 15 blocks of 36 each giving equal sums:*

	1	2	3	4	5	6	...	...	31	32	33	34	35	36	Total
A1	1	30	31	60	61	90	...	...	451	480	481	510	511	540	9738
A2	2	29	32	59	62	89	...	...	452	479	482	509	512	539	9738
A3	3	28	33	58	63	88	...	...	453	478	483	508	513	538	9738
A4	4	27	34	57	64	87	...	...	454	477	484	507	514	537	9738
A5	5	26	35	56	65	86	...	...	455	476	485	506	515	536	9738
A6	6	25	36	55	66	85	...	...	456	475	486	505	516	535	9738
A7	7	24	37	54	67	84	...	...	457	474	487	504	517	534	9738
A8	8	23	38	53	68	83	...	...	458	473	488	503	518	533	9738
A9	9	22	39	52	69	82	...	...	459	472	489	502	519	532	9738
A10	10	21	40	51	70	81	...	...	460	471	490	501	520	531	9738
A11	11	20	41	50	71	80	...	...	461	470	491	500	521	530	9738
A12	12	19	42	49	72	79	...	...	462	469	492	499	522	529	9738
A13	13	18	43	48	73	78	...	...	463	468	493	498	523	528	9738
A14	14	17	44	47	74	77	...	...	464	467	494	497	524	527	9738
A15	15	16	45	46	75	76	...	...	465	466	495	496	525	526	9738

Example 7.11. *Applying the values given in Distribution 7.11 over the magic square of order 6 given in Example 1.2, we get following 6 magic squares of order 6 with equal magic sums:*

A1						1623
1	511	510	481	30	90	1623
450	120	420	121	151	361	1623
360	331	211	240	300	181	1623
270	210	301	330	241	271	1623
91	390	150	391	421	180	1623
451	61	31	60	480	540	1623
1623	1623	1623	1623	1623	1623	1623

A2						1623
2	512	509	482	29	89	1623
449	119	419	122	152	362	1623
359	332	212	239	299	182	1623
269	209	302	329	242	272	1623
92	389	149	392	422	179	1623
452	62	32	59	479	539	1623
1623	1623	1623	1623	1623	1623	1623

A3						1623
3	513	508	483	28	88	1623
448	118	418	123	153	363	1623
358	333	213	238	298	183	1623
268	208	303	328	243	273	1623
93	388	148	393	423	178	1623
453	63	33	58	478	538	1623
1623	1623	1623	1623	1623	1623	1623

A4						1623
4	514	507	484	27	87	1623
447	117	417	124	154	364	1623
357	334	214	237	297	184	1623
267	207	304	327	244	274	1623
94	387	147	394	424	177	1623
454	64	34	57	477	537	1623
1623	1623	1623	1623	1623	1623	1623

A5						1623
5	515	506	485	26	86	1623
446	116	416	125	155	365	1623
356	335	215	236	296	185	1623
266	206	305	326	245	275	1623
95	386	146	395	425	176	1623
455	65	35	56	476	536	1623
1623	1623	1623	1623	1623	1623	1623

A6						1623
6	516	505	486	25	85	1623
445	115	415	126	156	366	1623
355	336	216	235	295	186	1623
265	205	306	325	246	276	1623
96	385	145	396	426	175	1623
456	66	36	55	475	535	1623
1623	1623	1623	1623	1623	1623	1623

A7						1623
7	517	504	487	24	84	1623
444	114	414	127	157	367	1623
354	337	217	234	294	187	1623
264	204	307	324	247	277	1623
97	384	144	397	427	174	1623
457	67	37	54	474	534	1623
1623	1623	1623	1623	1623	1623	1623

A8						1623
8	518	503	488	23	83	1623
443	113	413	128	158	368	1623
353	338	218	233	293	188	1623
263	203	308	323	248	278	1623
98	383	143	398	428	173	1623
458	68	38	53	473	533	1623
1623	1623	1623	1623	1623	1623	1623

A9						1623
9	519	502	489	22	82	1623
442	112	412	129	159	369	1623
352	339	219	232	292	189	1623
262	202	309	322	249	279	1623
99	382	142	399	429	172	1623
459	69	39	52	472	532	1623
1623	1623	1623	1623	1623	1623	1623

A10						1623
10	520	501	490	21	81	1623
441	111	411	130	160	370	1623
351	340	220	231	291	190	1623
261	201	310	321	250	280	1623
100	381	141	400	430	171	1623
460	70	40	51	471	531	1623
1623	1623	1623	1623	1623	1623	1623

A11						1623
11	521	500	491	20	80	1623
440	110	410	131	161	371	1623
350	341	221	230	290	191	1623
260	200	311	320	251	281	1623
101	380	140	401	431	170	1623
461	71	41	50	470	530	1623
1623	1623	1623	1623	1623	1623	1623

A12						1623
12	522	499	492	19	79	1623
439	109	409	132	162	372	1623
349	342	222	229	289	192	1623
259	199	312	319	252	282	1623
102	379	139	402	432	169	1623
462	72	42	49	469	529	1623
1623	1623	1623	1623	1623	1623	1623

A13						1623
13	523	498	493	18	78	1623
438	108	408	133	163	373	1623
348	343	223	228	288	193	1623
258	198	313	318	253	283	1623
103	378	138	403	433	168	1623
463	73	43	48	468	528	1623
1623	1623	1623	1623	1623	1623	1623

A14						1623
14	524	497	494	17	77	1623
437	107	407	134	164	374	1623
347	344	224	227	287	194	1623
257	197	314	317	254	284	1623
104	377	137	404	434	167	1623
464	74	44	47	467	527	1623
1623	1623	1623	1623	1623	1623	1623

A15						1623
15	525	496	495	16	76	1623
436	106	406	135	165	375	1623
346	345	225	226	286	195	1623
256	196	315	316	255	285	1623
105	376	136	405	435	166	1623
465	75	45	46	466	526	1623
1623	1623	1623	1623	1623	1623	1623

7.12 Summary of Blocks Used

This work brings 26 letters from A to Z and 10 numbers from 0 to 9 in terms of blocks of magic squares of order 6. Letters and numbers ares constructed with blocks of equal sums magic square of order 6. The most of the letters and numbers constructed are with 5-blocks height. The table below give an idea of block-wise construction of letters and numbers:

Consecutive Numbers	Number of Blocks	Equal Magic Sums	Letters	Numbers
1-180	5	543		1
1-216	6	651		
1-252	7	759	I; L; T	7
1-288	8	867	F; J; Y	
1-324	9	975	V; X; Z	4
1-360	10	1083	A; D; E; G; K; P	
1-396	11	1191	C; H; R; U	2; 3; 5
1-432	12	1299	B; O; R	0; 6; 9
1-468	13	1407	N; Q	8
1-504	14	1515		
1-540	15	1623	M; W	

By no way, we can say that the these are the only possible ways. These constructions can be done in different ways too.

During past years the author worked with magic squares in different situations. See below the details:

8 Author's Contributions to Magic Squares

The item-wise author's work on magic squares is as follows:

(i) **Digital numbers** magic squares – [1, 2, 3, 4, 5, 6];
(ii) **Block-wise construction** of **bimagic squares** – [7];
(iii) Connections with **genetic tables** and **Shannon's entropy** – [8];
(iv) **Selfie** and **palindromic-type** magic squares – [9];
(v) **Intervally distributed** and **block-wise** magic squares – [10, 11, 12];
(vi) **Multi-digits** magic squares – [13];
(vii) **Perfect square sum** magic squares with **uniformity**, **minimum sum** and **Pythagorean triples** – [14, 15];
(viii) **Block-wise** equal sums **pan magic squares of order** $4k$ – [16];
(ix) **Block-wise** equal and unequal sums **magic squares of order** $3k$ **and** $6k$ – [17, 18];
(x) **Magic rectangles** in construction of **block-wise pan magic squares** – [19];
(xi) **Magic Crosses:** Repeated and Non Repeated Entries – [20].

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