

Axially symmetric semi-trimagic square with two pairs of possible diagonals, which allow to derive 4 trimagic squares.

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(Possible) Diagonals: B, B*, Y, Y* (B means blue, Y means yellow, * means complement)

6a and **6b** are the expected axially symmetric trimagic squares with diagonals B, B* and Y, Y*.

6c is a trimagic square which is not symmetric, its diagonals B and Y are not complements of each other.

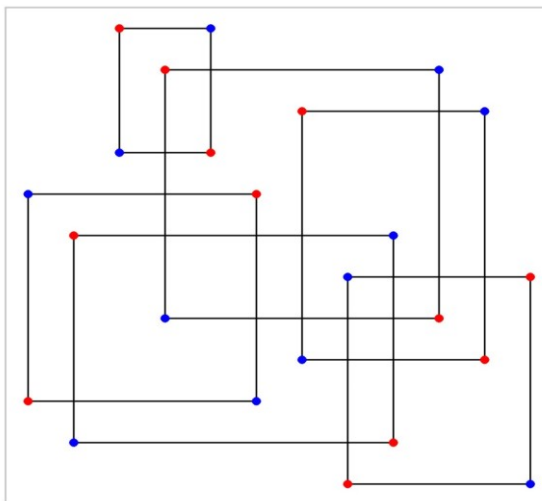
6d also is non-symmetric and has the diagonals B* and Y*, it is a represent of the complement of 6c.

We only can derive 6c and 6d if two non-complementary possible diagonals are arranged in the corners of 6 rectangles.

Original Semi-Trimagic Square

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

The corners of 6 rectangles contain the possible diagonals



Axially symmetric trimagic square with diagonals B and B*

6a

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

Axially symmetric trimagic square with diagonals Y and Y*

6b

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

Transformed square with diagonals B and Y

6c

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

Transformed square with grey diagonals B* and Y*

6d

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