

Magic Squares

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I believe people who like to play with numbers will find this page interesting if not fascinating. Shown below is the smallest magic square (3x3) known to man. Note that each row, column, and diagonal add up to the same number, 15 in this case.

8	1	6
3	5	7
4	9	2

4x4

Below are 2 examples of 4x4 magic squares. Take note that in addition to all rows, columns, and diagonals adding up to 34, the 4 numbers marked with an “x” also add up to 34.

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

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

x			x
x			x

	x	x	
	x	x	

	x	x	
	x	x	

x			x
x			x

x	x		
x	x		

		x	x
		x	x

x	x		
x	x		

		x	x
		x	x

	x		
x			
			x
		x	

		x	
			x
x			
	x		

8x8

It is interesting to note that Benjamin Franklin played with magic squares. He said that he could create an 8x8 magic square as fast as he could write. A truly amazing man.

9x9 and 12x12

For the 9x9 each row, column, and diagonal adds up to 369. For the 12x12 each row, column, and diagonal adds up to 870.

9x9 (369)

71	64	69	8	1	6	53	46	51
66	68	70	3	5	7	48	50	52
67	72	65	4	9	2	49	54	47
26	19	24	44	37	42	62	55	60
21	23	25	39	41	43	57	59	61
22	27	20	40	45	38	58	63	56
35	28	33	80	73	78	17	10	15
30	32	34	75	77	79	12	14	16
31	36	29	76	81	74	13	18	11

12x12 (870)

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