



Learn a new puzzle

Magic Squares & Triangles

Write 1 to 16 once each. Every row, column and diagonal adds to 34.

Trick: The corners add to 34

1

16			13
4			1

In every 4×4 magic square, the four corners add to 34. Here $16 + 13 + 4 + 1 = 34$.

2

16			13
4	15		1

Three corners are 16, 13 and 4. The last corner is $34 - 16 - 13 - 4 = 1$.

3

16			13
4	15	14	1

Now the bottom row has one gap: $34 - 4 - 15 - 1 = 14$.

Try it

Each row, column and diagonal adds to 34.

		14	11
9	16		
6	3		13

Use 1 to 16 once each.

The answer is with the other answers.

Talk about it: Ask: Which other groups of four add to 34?



1

Magic Squares & Triangles

Write the numbers so every line adds to the same total.



Each row, column and diagonal adds to 34.

4			15
	12	1	
3		16	10
		11	2

Use 1 to 16 once each.

2

Magic Squares & Triangles

Write the numbers so every line adds to the same total.



Each row, column and diagonal adds to 34.

11	1		
8	4	9	13
5	15	2	

Use 1 to 16 once each.



3

Magic Squares & Triangles

Write the numbers so every line adds to the same total.



Each row, column and diagonal adds to 34.

11		14	
5	16		
	13	1	12
		15	

Use 1 to 16 once each.

4

Magic Squares & Triangles

Write the numbers so every line adds to the same total.



Each row, column and diagonal adds to 34.

16		10	
2		11	15
3	9		
			4

Use 1 to 16 once each.



5

Magic Squares & Triangles

Write the numbers so every line adds to the same total.



Each row, column and diagonal adds to 34.

7		11	
	3		13
5	16		4
			15

Use 1 to 16 once each.

6

Magic Squares & Triangles

Write the numbers so every line adds to the same total.



Each row, column and diagonal adds to 34.

	7		2
		3	15
4	16		
	1		

Use 1 to 16 once each.



7

Magic Squares & Triangles

Write the numbers so every line adds to the same total.



Each row, column and diagonal adds to 34.

			15
		6	9
		13	2
10	5		

Use 1 to 16 once each.

8

Magic Squares & Triangles

Write the numbers so every line adds to the same total.



Each row, column and diagonal adds to 34.

15			
	1		
4	7		13
		3	

Use 1 to 16 once each.



9

Magic Squares & Triangles

Write the numbers so every line adds to the same total.



Each row, column and diagonal adds to 34.

	10	3	
1			12
			8
		15	

Use 1 to 16 once each.

10

Magic Squares & Triangles

Write the numbers so every line adds to the same total.



Each row, column and diagonal adds to the same total.

			14
16	6		
	13		4

Use 1 to 16 once each.



Answers For grown-ups. Cut off or keep this page aside until the puzzles are done.

Learn · Magic Squares & Triangles

Each row, column and diagonal adds to 34.

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

Use 1 to 16 once each.

#1

Each row, column and diagonal adds to 34.

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

Use 1 to 16 once each.

The third row has one gap: $34 - 3 - 16 - 10 = 5$. Then fill each line's last gap.

#2

Each row, column and diagonal adds to 34.

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

Use 1 to 16 once each.

The bottom row has one gap: $34 - 5 - 15 - 2 = 12$. Then fill each line's last gap.

#3

Each row, column and diagonal adds to 34.

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

Use 1 to 16 once each.

The third row has one gap: $34 - 13 - 1 - 12 = 8$. Then fill each line's last gap.

#4

Each row, column and diagonal adds to 34.

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

Use 1 to 16 once each.

The second row has one gap: $34 - 2 - 11 - 15 = 6$. Then fill each line's last gap.

#5

Each row, column and diagonal adds to 34.

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

Use 1 to 16 once each.

Key step: The four corners add to 34: $34 - 7 - 2 - 15 = 10$.

#6

Each row, column and diagonal adds to 34.

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

Use 1 to 16 once each.

Key step: The four corners add to 34: $34 - 11 - 2 - 13 = 8$.

#7

Each row, column and diagonal adds to 34.

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

Use 1 to 16 once each.

Key step: The four corners add to 34: $34 - 15 - 10 - 8 = 1$.

#8

Each row, column and diagonal adds to 34.

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

Use 1 to 16 once each.

Key step: The top row needs 14 from 2 numbers left: $2 + 12$.



Answers

For grown-ups. Cut off or keep this page aside until the puzzles are done.

#9

Each row, column and diagonal adds to 34.

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

Use 1 to 16 once each.

Key step: The top row needs 21 from 2 numbers left: $5 + 16$ or $7 + 14$.

#10

Each row, column and diagonal adds to the same total.

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

Use 1 to 16 once each.

1 to 16 add to 136, and 4 rows share it: $136 \div 4 = 34$. Key step: The top row needs 20 from 3 numbers left: $1 + 7 + 12$ or $1 + 8 + 11$ or $2 + 7 + 11$ or $3 + 7 + 10$ or $5 + 7 + 8$.