

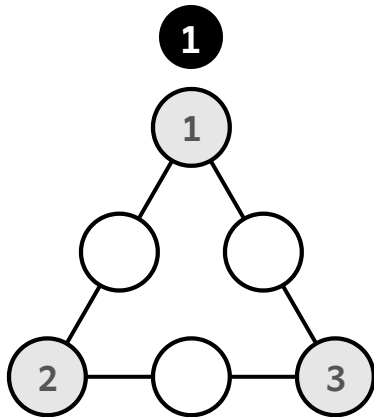


Learn a new puzzle

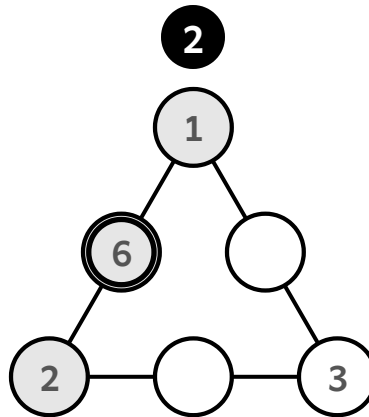
Magic Squares & Triangles

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

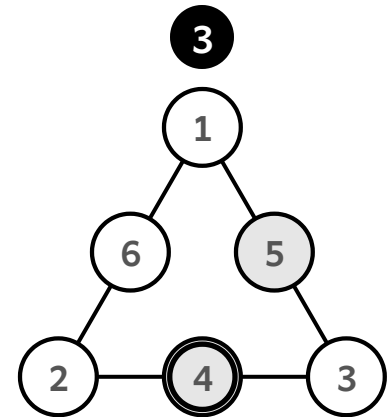
Trick: **Corners count twice**



Use 1 to 6, each side 9.
Three sides make 27, but 1 to 6 make 21: the corners count twice, so they add to 6 (1, 2, 3).



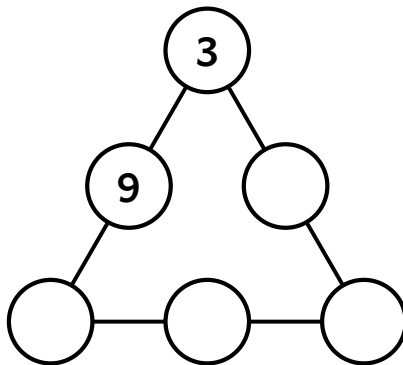
Side 1 and 2: $9 - 1 - 2 = 6$.



Fill the other sides the same way: 4 and 5.

Each side adds to 18.

Try it



Use 3, 4, 6, 7, 8, 9.

The answer is with the other answers.

Talk about it: Ask: Why do the corners count twice? Which numbers should go there?



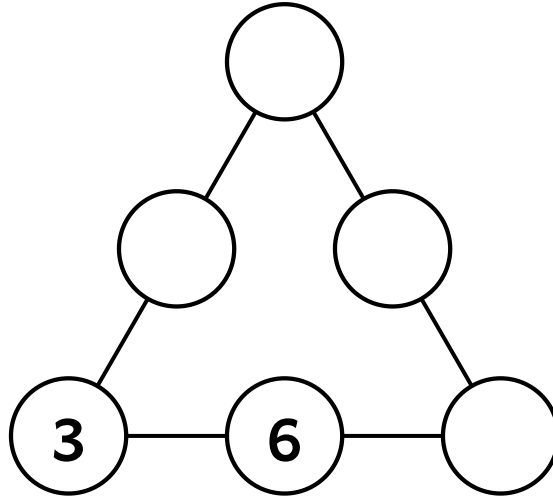
1

Magic Squares & Triangles

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



Each side adds to 14.



Use 2, 3, 4, 5, 6, 7.

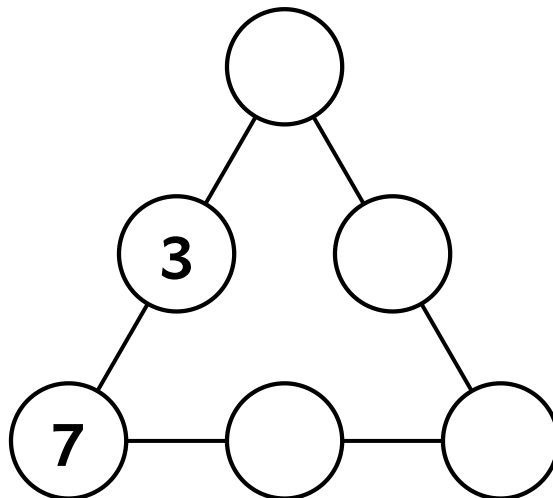
2

Magic Squares & Triangles

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



Each side adds to 18.



Use 1, 2, 3, 7, 8, 9.



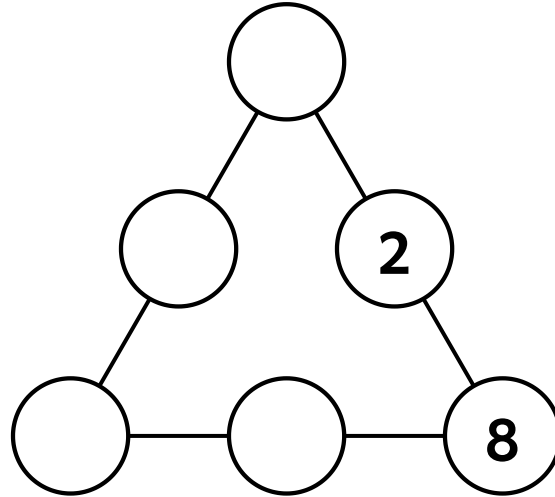
3

Magic Squares & Triangles

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



Each side adds to 16.



Use 1, 2, 6, 7, 8, 9.

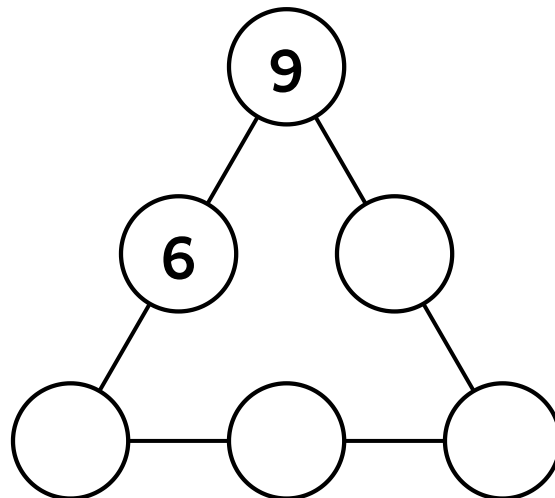
4

Magic Squares & Triangles

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



Each side adds to 19.



Use 3, 4, 6, 7, 8, 9.



5

Magic Squares & Triangles

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



Each row, column and diagonal adds to 63.

	41	
		36

Use 1, 6, 11, 16, 21, 26, 31, 36, 41.

6

Magic Squares & Triangles

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



Each row, column and diagonal adds to 90.

		25
		20

Use 10, 15, 20, 25, 30, 35, 40, 45, 50.



7

Magic Squares & Triangles

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



Each row, column and diagonal adds to 87.

34		
		49

Use 9, 14, 19, 24, 29, 34, 39, 44, 49.

8

Magic Squares & Triangles

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



Each row, column and diagonal adds to 45.

	2	27
		4



9

Magic Squares & Triangles

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



Each row, column and diagonal adds to 51.

12		
		1
	23	

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.

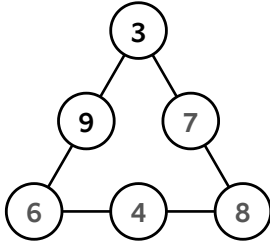
	23	28
	29	



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

Learn · Magic Squares & Triangles

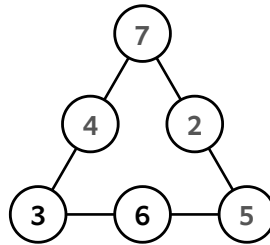
Each side adds to 18.



Use 3, 4, 6, 7, 8, 9.

#1

Each side adds to 14.

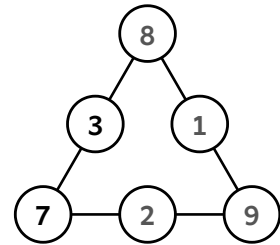


Use 2, 3, 4, 5, 6, 7.

The bottom side has one gap: it is 5.
Key step: The corners count twice, so they add to 15: the last corner is 7.

#2

Each side adds to 18.

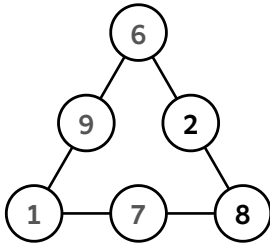


Use 1, 2, 3, 7, 8, 9.

The left side has one gap: it is 8. Key step: The corners count twice, so they add to 24: the last corner is 9.

#3

Each side adds to 16.

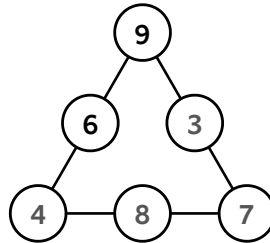


Use 1, 2, 6, 7, 8, 9.

The right side has one gap: it is 6. Key step: The corners count twice, so they add to 15: the last corner is 1.

#4

Each side adds to 19.



Use 3, 4, 6, 7, 8, 9.

The left side has one gap: it is 4. Key step: The corners count twice, so they add to 20: the last corner is 7.

#5

Each row, column and diagonal adds to 63.

6	41	16
31	21	11
26	1	36

Use 1, 6, 11, 16, 21, 26, 31, 36, 41.

The middle is a third of the total: $63 \div 3 = 21$. Then fill each line's last gap.

#6

Each row, column and diagonal adds to 90.

15	50	25
40	30	20
35	10	45

Use 10, 15, 20, 25, 30, 35, 40, 45, 50.

The right column has one gap: it is 45. Key step: The middle is a third of the total: $90 \div 3 = 30$.

#7

Each row, column and diagonal adds to 87.

34	39	14
9	29	49
44	19	24

Use 9, 14, 19, 24, 29, 34, 39, 44, 49.

The middle is a third of the total: $87 \div 3 = 29$. Then fill each line's last gap.

#8

Each row, column and diagonal adds to 45.

16	2	27
26	15	4
3	28	14

The top row has one gap: it is 16. Then fill each line's last gap.



Answers

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

#9

Each row, column and diagonal adds to 51.

12	11	28
33	17	1
6	23	22

The middle is a third of the total: $51 \div 3 = 17$. Then fill each line's last gap.

#10

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

36	23	28
21	29	37
30	35	22

The total is $3 \times$ the middle: $3 \times 29 = 87$.
Then fill each line's last gap.