

Using Reasoning To Solve Problems and Analyze Puzzles and Games.

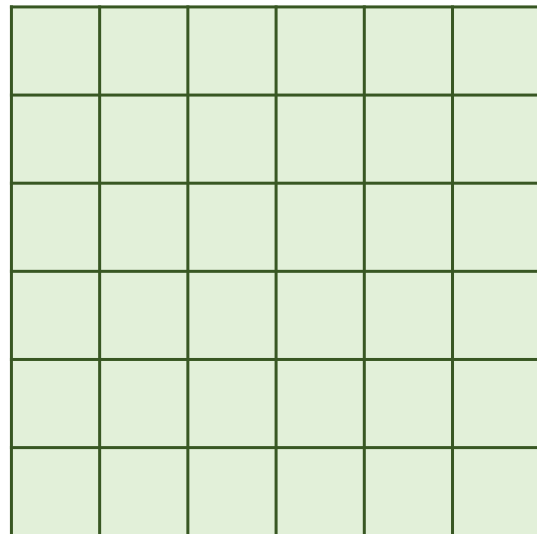
Lesson #3

78

Exactly 2

You have 12 items that you need to arrange in the grid; however, each row, column, and diagonals (from corner-to-corner) contain exactly 2 items.

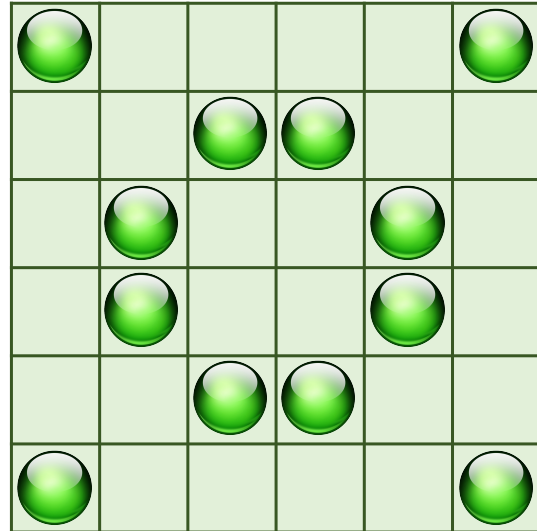
Hint: there are only 3 possible solutions.



79

Exactly 2

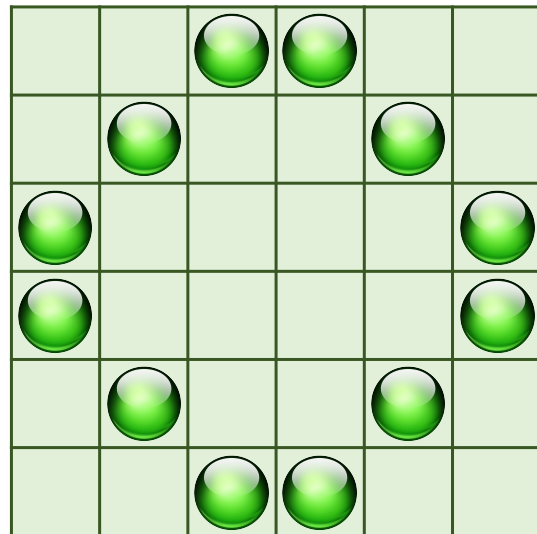
Solution #1



80

Exactly 2

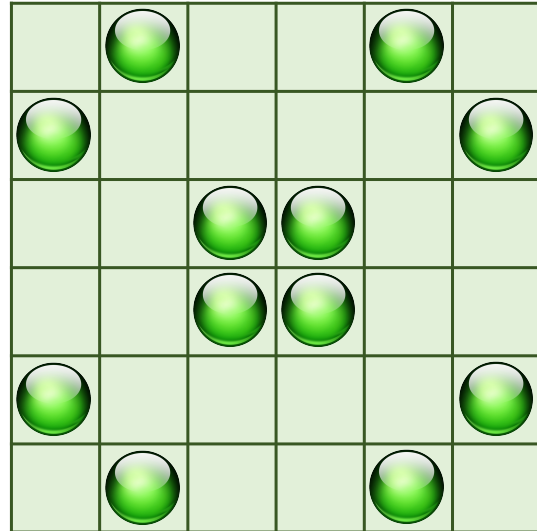
Solution #2



81

Exactly 2

Solution #3



82

Grid

Can you fill in the missing square with the number that logically belongs there?

2	2	2	2
2	6	10	14
2	10	26	50
2	14	50	?

83

Grid

Solution:

Each number is the sum of the number above it, to the left of it, and diagonally and upwards to the left of it.

2	2	2	2
2	6	10	14
2	10	26	50
2	14	50	126

84

Magic Square

Fill in the missing numbers so that the numbers in every row, down, across, and diagonally, will add up to 30.

Then, for a real challenge, make up your own magic square.

12		16
4		8

85

Magic Square

Fill in the missing numbers so that the numbers in every row, down, across, and diagonally, will add up to 30.

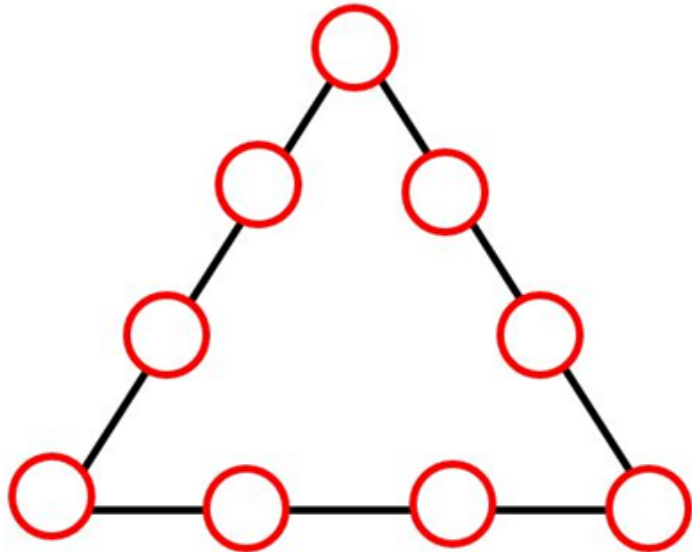
Then, for a real challenge, make up your own magic square.

12	2	16
14	10	6
4	18	8

86

Magic Triangle

Using the digits 1 – 9, only once, make the sum of each sides of the triangle equal to each other.



87

Tricky Grid

Fill in the grid below using only the numbers 1 thru 8 so that no adjacent box (touching, including diagonal) touched the previous or next number (i.e. 2 cannot contact the box with 1 and 3 in it).

