

Investigation Four of the best

1. Copy this square.

+	0.7	0.2	1.1	1.8
1.3				
0.5				
0.6				
1				

2. Add the numbers in the top row and left column to complete the square.
3. Choose a number on the square and circle it.
4. Cross out all the numbers in the same row and column.
5. Choose another number – one that is not crossed out – and circle it.
6. Cross out all the numbers in the same row and column.
7. Repeat this for the third time.
8. Circle the remaining number.
9. Add the four circled numbers.
10. Now add the eight numbers round the outside of the square.
11. Finally add the numbers in each diagonal.

+	0.7	0.2	1.1	1.8
1.3	2	1.5		
0.5	1.2	0.7		
0.6	1.3			
1				

+	0.7	0.2	1.1	1.8
1.3	2	(1.5)	1.1	1.8
0.5	1.2	0.7	(1.6)	1.8
0.6	(1.3)	1.1	1.8	1.8
1	2	1.5	1.1	(2.8)

Try this again using the square below. What do you notice about the numbers here compared to those on the first square? Can you predict what may happen this time?

+	1.7	1.2	2.1	2.8
2.3				
1.5				
1.6				
2				

Try this again, starting with the original square, but this time adding $\frac{1}{10}$ to each number.

Challenge

Use the original square to invent a new square where the same thing happens.