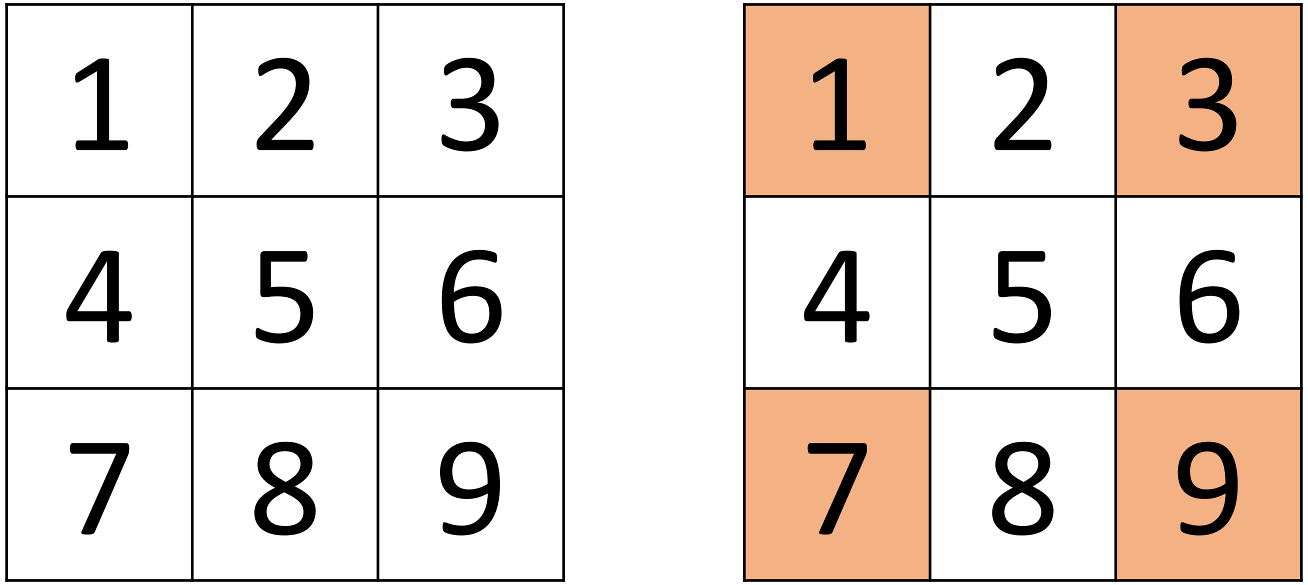
Just for make twenty



The diagram above shows the digits from 1 to 9 written in a 3 x 3 square.

If the four corners are shaded and the numbers added together, their total is 20. However, this is not the only way to produce the same total from the numbers in four of the squares.

On separate diagrams, shade all the different ways that four squares can produce the same total.

How many different ways can you find?

1	2	3
4	5	6
7	8	9

1	2	3
4	5	6
7	8	9

1	2	3
4	5	6
7	8	9

1	2	3
4	5	6
7	8	9

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7	8	9

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4	5	6
7	8	9

1	2	3
4	5	6
7	8	9

1	2	3
4	5	6
7	8	9

1	2	3
4	5	6
7	8	9

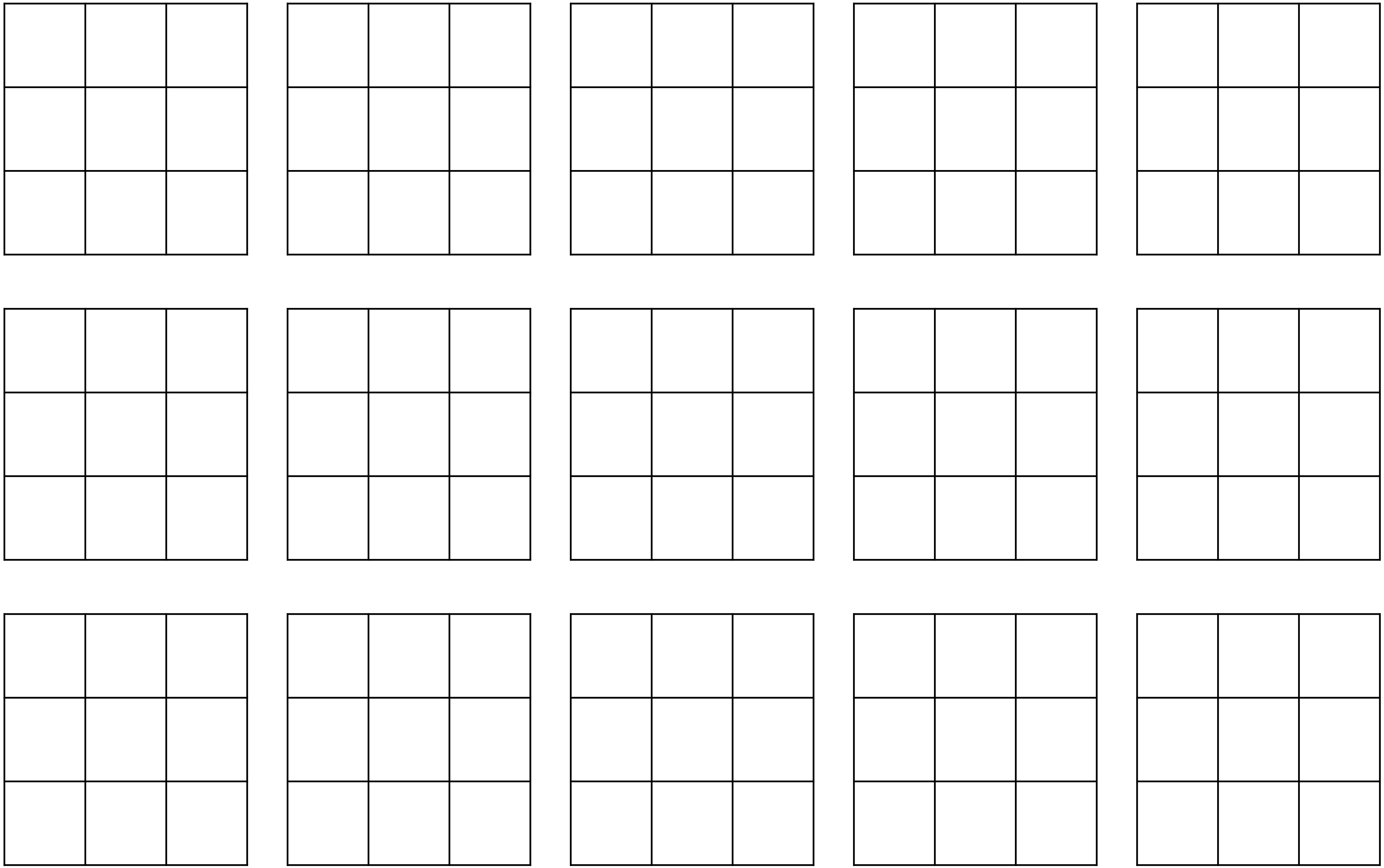
1	2	3
4	5	6
7	8	9

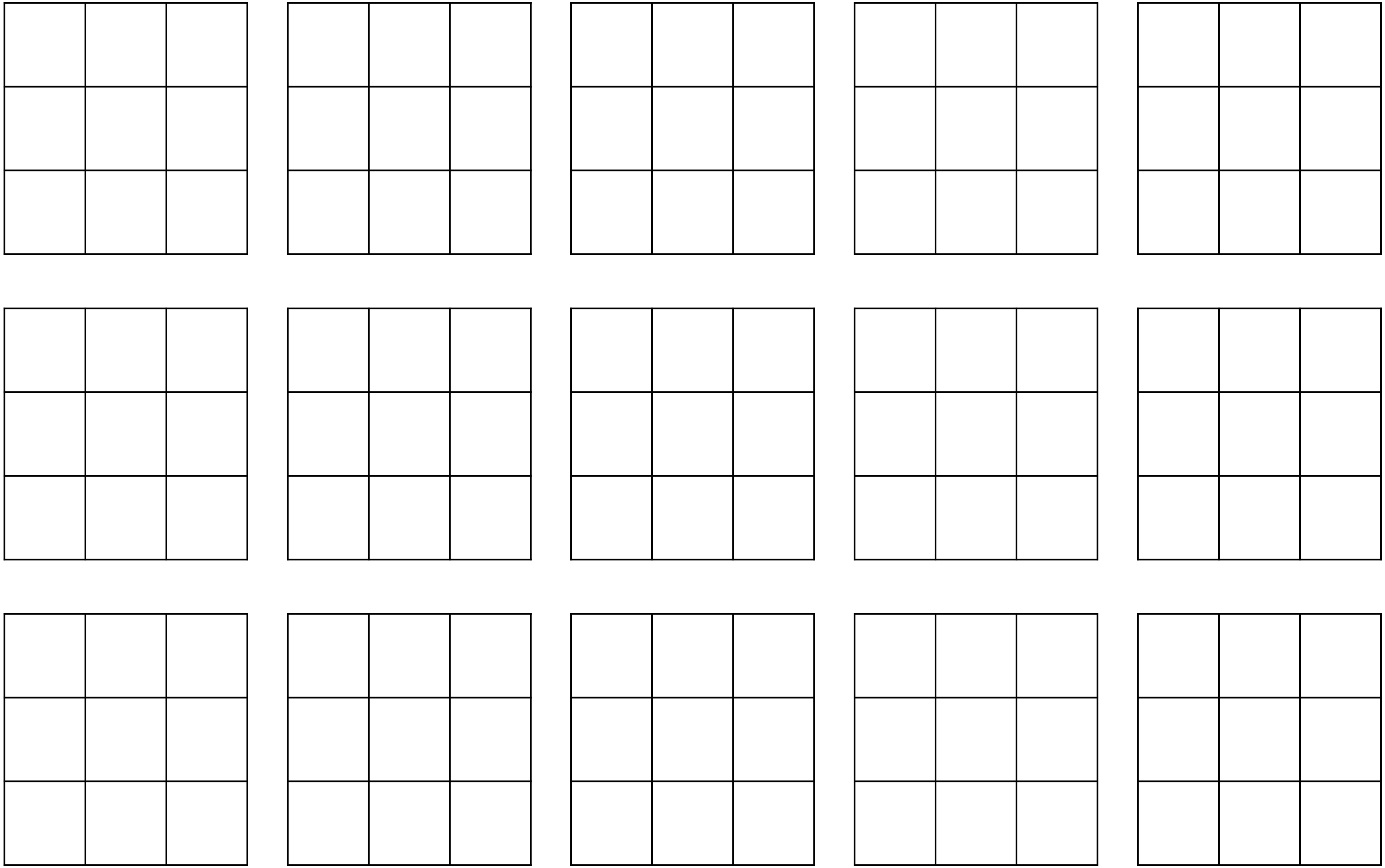
Try this with a different set of nine consecutive numbers in the square, say from 10 to 18.

How many different ways can you find the same total?

How is the centre number related to the total?

Does this work for all consecutive numbers?





What do you wonder now you have explore this?

Can you create your own investigation?

Tell us what you have explored and what you found.