

Roll over the dice

What I've noticed

6	3	1	4	6
5	5	5	5	5
1	4	6	3	1
2	2	2	2	2
6	3	1	4	6

All the same

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These two lines are exactly the same.

All the black numbers in the 1st, 3rd and 5th line vertically are all opposites and so are the 2nd and 4th.
e.g.

1st line | 3rd line | 5th line

6	1	6
1	6	1
6	1	6

Since the first line was 6, in the ~~first~~ 3rd line the first number would be 1 and then the last line's first number would be 6 again.

In this case the opposite of 6 ~~line~~ is 1.

I tried this again and all the things I had noticed were the same with the different combination of numbers.

I then tried this same question but with an even amount of boxes:

2	2	1	1
1	3	3	2
5	5	6	6
6	4	4	5

There was a pattern just slightly less obvious. There were 3 of each number except for the two pairs in the middle, in this case the numbers 3 and 4. Out of the 3 of each number only two of the same number stand next to each other

and the last same number of each triplet stands alone on the other side of the square grid.

Finally I tried this twice more using a 3×3 and 2×2 grid and this is what I found:

1	4	1
5	5	5
3	6	3

→ I found that there are very clear patterns in the 3×3 square: Firstly, the top and bottom line both have the same pattern but both using different numbers. Now, in the example I made there is another pattern with the top and bottom line but this does not apply to all 3×3 grids. The difference between the top lines first number and bottom lines first number has a difference of 2, so does the middle number of both the top and bottom line and the same with the last ^{numbers of the top} and bottom line. Secondly, all three numbers in the middle line are the same.

... I've noticed

5	5
4	1

For the 2×2 square there is only one pattern and that is that the two numbers on top will always be the same.