Looking for Patterns

+	1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10	11
2	3	4	5	6	7	8	9	10	11	12
3	4	5	6	7	8	9	10	11	12	13
4	5	6	7	8	9	10	11	12	13	14
5	6	7	8	9	10	11	12	13	14	15
6	7	8	9	10	11	12	13	14	15	16
7	8	9	10	11	12	13	14	15	16	17
8	9	10	11	12	13	14	15	16	17	18
9	10	11	12	13	14	15	16	17	18	19
10	11	12	13	14	15	16	17	18	19	20

Find and describe a rule for the following:

1. The sum of any three horizontally adjacent numbers
2. The sum of any three vertically adjacent numbers
3. The sum of any two-by-two array of numbers
4. The sum of any three-by-three array of numbers
5. The sum of any ten-by-ten array of numbers
6. The sum of any cross of five numbers
7. The sum of any three diagonally adjacent numbers
8. The sum of any four diagonally adjacent numbers
9. The sum of any five diagonally adjacent numbers

Investigate similar patterns and describe their rules!