

24-11-21

k=1

0	-1	-1	-1
-1	-1	-1	-1
-1	-1	-1	-1
-1	-1	-1	0

k=2

For square 2, 5, 12, 15

$$\max[(-1 + 0 * -1), (-1 + 1 * -1), (-1 + 1 * -1), (-1 + 1 * -1)] = -1$$

For square others excluding 1, 16

$$\max[(-1 + 1 * -1), (-1 + 1 * -1), (-1 + 1 * -1), (-1 + 1 * -1)] = -2$$

0	-1	-2	-2
-1	-2	-2	-2
-2	-2	-2	-1
-2	-2	-1	0

k=3

Since it takes the max, only squares 4, 7, 10, 13 will be different

$$\max[(-1 + 1 * -2), (-1 + 1 * -2), (-1 + 1 * -2), (-1 + 1 * -2)] = -3$$

0	-1	-2	-3
-1	-2	-3	-2
-2	-3	-2	-1
-3	-2	-1	0

Will stay same for k=4

0	-1	-2	-3
-1	-2	-3	-2
-2	-3	-2	-1
-3	-2	-1	0