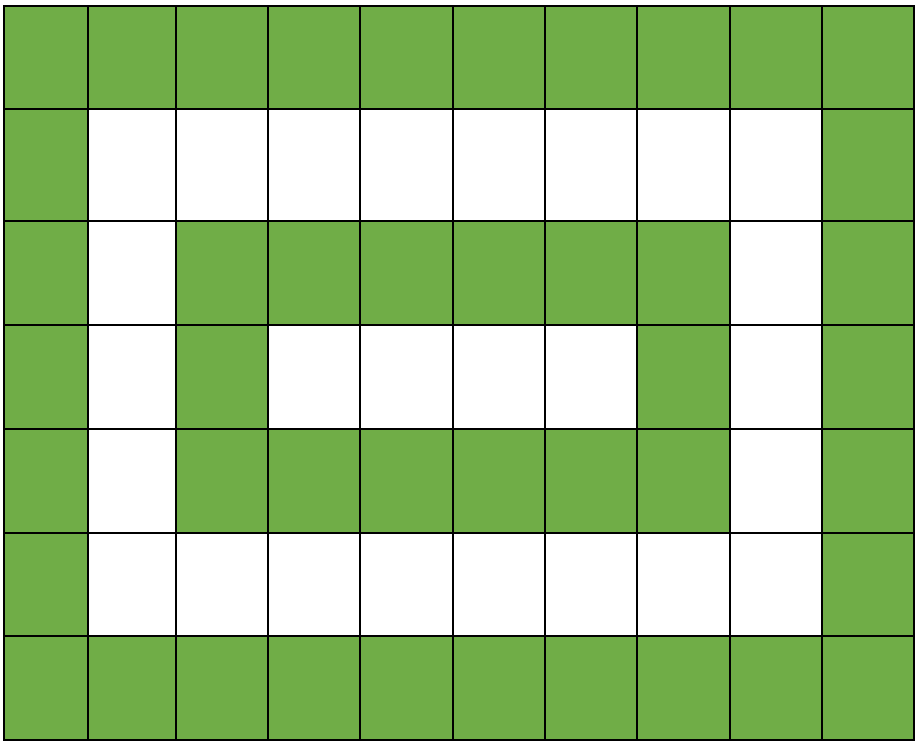
Green Plate

Time Limit 1 second

Problem

You have a plate and you want to add some greening to it. The plate is a rectangle that we split into w×h cells. There should be k greem rings, the first one should go along the edge of the plate, the second one 2 cells away from the edge and so on. Each ring has a width of 1 cell. Formally, the i-th of these rings should consist of all bordering cells on the inner rectangle of size (w−4(i−1))×(h−4(i−1)).



Your task is to compute the number of cells to be greens.

Input

The only line contains three integers w, h and k ($3 \le w, h \le 100$, $1 \le k \le \lfloor (\min(n, m)+1)/4 \rfloor$, where $\lfloor x \rfloor$ denotes the number x rounded down) the number of rows, columns and the number of rings, respectively.

Output

Print a single positive integer the number of cells to be green.

Sample Input 1	Sample Output 1
3 3 1	8

Sample Input 1	Sample Output 1
7 9 2	40