You are visiting the Centre Pompidou which contains a lot of modern paintings. In particular you notice one painting which consists solely of black and white squares, arranged in rows and columns like in a chess board (no two adjacent squares have the same colour). By the way, the artist did not use the tool of problem A to create the painting.

Since you are bored, you wonder how many 8×8 chess boards are embedded within this painting. The bottom right corner of a chess board must always be white.

Input

The input contains several test cases. Each test case consists of one line with three integers n, m and c. ($8 \leq n, m \leq 40000$), where n is the number of rows of the painting, and m is the number of columns of the painting. c is always 0 or 1, where 0 indicates that the bottom right corner of the painting is black, and 1 indicates that this corner is white.

The last test case is followed by a line containing three zeros.

Output

For each test case, print the number of chess boards embedded within the given painting.

Sample Input

```
8 8 0
8 8 1
9 9 1
40000 39999 0
0 0 0
```

Sample Output

```
0
1
2
799700028
```