**The war**

In War, The Enemy have placed their mines on the ground which can be considered as a grid of size NxM. N denotes Row and M is Column . Each cell(i,j) has a mine in it if (i+j) is divisible by 2 otherwise all the other cells are empty. i and j both are the rows and columns index.

Write the program to find out the number of empty cells where mines wan't blow if grid (matrix dimension ) size is given by user

**Input Format**

single line string having grid size

**Constraints**

string having all possible matrix combination mxn

**Output Format**

integer number

**Sample Input 0**

3 x 3

**Sample Output 0**

4

**Sample Input 1**

2 x 3

**Sample Output 1**

3

## Gully Boy Boht Hard Question

Gully Boy for his new rap, creating a list of characters, so that list can be arranged in different manners, as per the mood of crowd. They seek help from GLA students because they feel this is "Boht Hard" to create. Your task is to keep a linked list of characters for creating rap, but do not keep "white space" character in linked list

-Whenever anyone from the crowd gave gully boy a position of node they have to sing all the linked character N times to create a rap.

for example charsequence is "hello world", int position is 6, N is 1.

we have to store each character in node except white-space, so node position 6 will have 'w' stored in it. And we have to print all characters once so the output will be:

w o r l d h e l l o

**Input Format**

* first line contains an sequence of characters to be stored as linked list of characters
* Second line contains an int node position
* Third line contains an integer N denoting how many times you have to sing all characters from given node.

**Constraints**

* position>0 & position< total length of char sequence - totla nunber of spaces
* N>0 & N<10

**Output Format**

* print space seprated characters from given position, print them N times

**Sample Input 0**

hello world

6

1

**Sample Output 0**

w o r l d h e l l o

**Explanation 0**

charaequence is "hello world"

int position is 6th node

int N is 1

so we have to print all characters in space seprated manner

w o r l d h e l l o

there is a space after last character also.

**Sample Input 1**

apna time ayega

5

3

**Sample Output 1**

t i m e a y e g a a p n a t i m e a y e g a a p n a t i m e a y e g a a p n a

## The Bar

At a popular bar, each customer has a set of favorite drinks, and will happily accept any drink among this set. For example, in the following situation, customer 0 will be satisfied with drinks 0, 1, 3, or 6.

preferences = {

0: [0, 1, 3, 6],

1: [1, 4, 7],

2: [2, 4, 7, 5],

3: [3, 2, 5],

4: [5, 8]

}

A lazy bartender working at this bar is trying to reduce his effort by limiting the drink recipes he must memorize. Given a dictionary input such as the one above, return the fewest number of drinks he must learn in order to satisfy all customers.

For the input above, the answer would be 2, as drinks 1 and 5 will satisfy everyone.

**Input Format**

dictionary

**Constraints**

None

**Output Format**

intger number

**Sample Input 0**

{

0: [0, 1, 3, 6],

1: [1, 4, 7],

2: [2, 4, 7, 5],

3: [3, 2, 5],

4: [5, 8]

}

**Sample Output 0**

2

**Explanation 0**

For the input above, the answer would be 2, as drinks 1 and 5 will satisfy everyone.

**Sample Input 1**

{

0: [0, 5],

1: [5],

2: [2, 6, 5],

3: [1, 5],

4: [1, 5]

}

**Sample Output 1**

1

**Explanation 1**

For the input above, the answer would be 1, as drinks 5 will satisfy everyone.