Summer Lesson

HackerRank university is planning ahead of this school year's summer classes.

There are n students that are planning to enroll. Each student wants to take exactly one out of m classes. To help the university in planning, they want to know how many students are taking each class.

Complete the function `howManyStudents` which takes in an integer m and an integer array c of length n, where $c[i]$ represents the index of the class that student i wants to take. The function must return an integer array s of length m, where $s[j]$ represents the number of students that want to take class j.

We index the students 0 to $n-1$ and we index the classes 0 to $m-1$.

Input Format

The first line contains two space-separated integers n and m.

The second line contains n space-separated integers $c[0], c[1], \ldots, c[n-1]$.

Constraints

- $1 \leq n, m \leq 1000$
- $0 \leq c[i] < m$

Output Format

Print a single line containing m space-separated integers $s[0], s[1], \ldots, s[m-1]$.

Sample Input 0

```
4 3
2 2 0 2
```

Sample Output 0

```
1 0 3
```

Explanation 0

There are $n = 4$ students and $m = 3$ classes. We have $c = [2, 2, 0, 2]$, which means that:

- Student 0 wants to take class 2.
- Student 1 wants to take class 2.
- Student 2 wants to take class 0.
- Student 3 wants to take class 2.

This means that:

- 1 student wants to take class 0.
- 0 students want to take class 1.
- 3 students want to take class 2.

Hence, we must print the array $s = [1, 0, 3]$.