

Problem Dec 1: Advent

Time limit: 2 seconds

Holly wants to fill a huge advent calendar for n days as a Christmas gift to her best friend Nicholas. She has n pieces of chocolate in total which are of k different types, numbered from type 1 to type k . To have some variety, it is important to Holly that Nicholas never gets the same type of chocolate on two days in a row. Help her to fill her calendar if possible.



A self-made advent calendar. Photo by [Dari Ili](#) on [Unsplash](#)

Input

The input consists of:

- One line with two integers n and k ($1 \leq n, k \leq 10^5$), the number of days and the number of chocolate types.
- One line with k integers c_1, \dots, c_k ($1 \leq c_i \leq n$), where the i th integer specifies the number of chocolate pieces of type i . It is guaranteed that the sum over all c_i is equal to n .

Output

Output “impossible” if it is impossible to fill the advent calendar such that consecutive days contain different types of chocolate. Otherwise, output “possible”, followed by a line with n integers, where the i th integer specifies the type of chocolate on day i . If there are multiple valid solutions, you may print any of them.

Sample Input 1

```
4 3
1 2 1
```

Sample Output 1

```
possible
2 1 3 2
```

Sample Input 2

```
7 4
2 3 1 1
```

Sample Output 2

```
possible
4 1 2 1 2 3 2
```

Sample Input 3

```
8 3
5 1 2
```

Sample Output 3

```
impossible
```

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