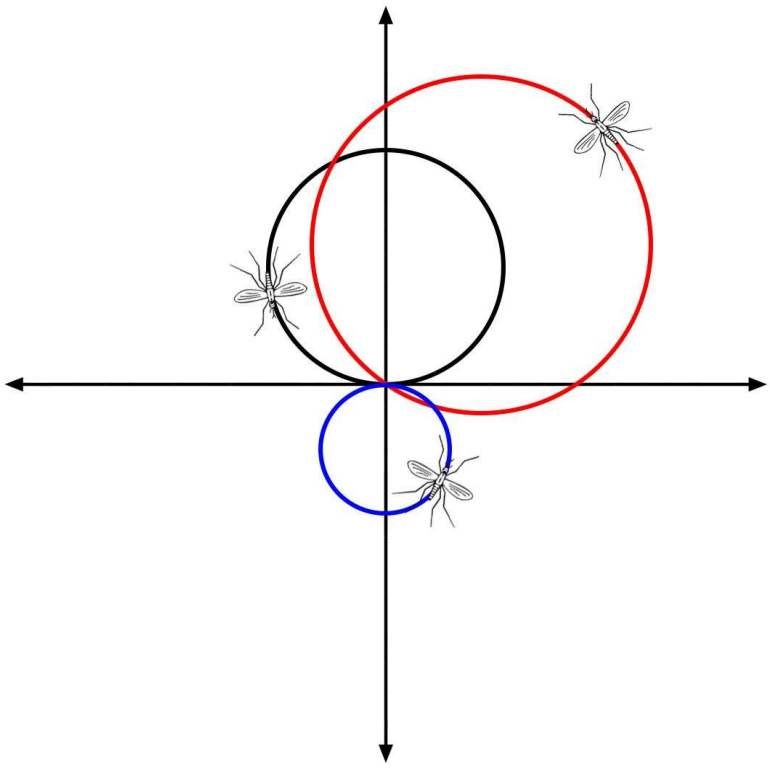
B. Mosquitoes

Ramadan is here and mosquitoes are going crazy... They are flying around in a circular motions making up a cloud of mosquitoes! Each mosquito is flying in a circular motion (shape of circle) of radius $\mathbf{R_i}$ and all circles meet in the center at a single point in the space, let's call it (0, 0) the **origin point**.

You are standing, watching their motion and feeling amazed, and you started to wonder what is the order of the first **Q** mosquitoes you will see crossing the **origin point**?

For simplicity, we'll assume that all mosquitoes start at the **origin point** at the beginning and have the same speed.



This figure shows 3 mosquitoes at a random time
flying in their circular motions passing by the origin.

Input Format

The first line of input contains 2 space-separated integers **N** and **Q**.

The second line contains **N** space-separated integers $\mathbf{R_i}$ ($1 \leq \mathbf{i} \leq \mathbf{N}$), each represents the radius of the circular motion of the i^{th} mosquito.

Output Format

Output a set **S** of **Q** space separated integers, where $\mathbf{S_j}$ ($1 \leq \mathbf{j} \leq \mathbf{Q}$) is the index of the $\mathbf{j^{th}}$ mosquito you see crossing the **origin point** (0, 0). If more than one mosquito cross the **origin point** at the same time output them in increasing order of their indices.

Mosquitoes at the **origin point** at the beginning at time zero are not counted.

Subtasks

Subtask 1 – 7 Points

- $\mathbf{N} = 3$
- $\mathbf{Q} = 1$
- $1 \leq \mathbf{R_i} <= 1{,}000$

Subtask 2 – 9 Points

- $1 \leq \mathbf{N} \leq 1{,}000$
- $\mathbf{Q} = 1$
- $1 \leq \mathbf{R_i} \leq 1{,}000$

Subtask 3 – 21 Points

- $\mathbf{N} = 3$
- $\mathbf{Q} = 2$
- $1 \leq \mathbf{R_i} \leq 1{,}000$

Subtask 4 – 15 Points

- **N** = 2
- 1 ≤ **Q** ≤ 1,000
- 1 ≤ $\mathbf{R_i}$ ≤ 1,000

Subtask 5 – 24 Points

- 1 < **N** ≤ 1,000
- 1 ≤ **Q** ≤ 1,000
- 1 ≤ $\mathbf{R_i}$ ≤ 1,000

Subtask 6 – 24 Points

- 1 < **N** ≤ 100,000
- 1 ≤ **Q** ≤ 100,000
- 1 ≤ $\mathbf{R_i}$ ≤ 1,000,000

Examples

#	Input	Output
1	2 5 1 3	1 1 1 2 1
2	3 10 6 8 9	1 2 3 1 2 1 3 1 2 3

Examples Explanation

In the first example, there are only 2 mosquitoes, the 1st will pass by the **origin point** 2 times, then it will happen that both the 1st and 2nd mosquitoes will pass by the **origin point** at the same moment, in this case they should be outputted in their index order. Then finally the 1st will pass again by the **origin point**.