Tennis Robot

Input File: `tennisin.txt`
Output File: `tennisout.txt`

Time and Memory Limits: 1 second, 1 GB

Your local sports centre has just employed a new robot to help clean up the tennis courts. At the end of the day, the robot collects all of the leftover tennis balls on the court, and dumps them into storage bins for the night. The sports centre has $\mathbf{B}$ bins of varying sizes, numbered from $\mathbf{1}$ to $\mathbf{B}$. The $\mathbf{i}$th bin is able to hold $\mathbf{A_i}$ balls before it is full.

Today, there are $\mathbf{N}$ balls on the court to be packed away. The robot uses a simple procedure to put the balls away:

- If the 1st bin is not yet full, put one ball into it.
- If the 2nd bin is not yet full, put one ball into it.
- If the 3rd bin is not yet full, put one ball into it.
- ...
- If the $\mathbf{B}$th bin is not yet full, put one ball into it.

The robot then repeats these steps over and over again, until all the balls are put away. You know for certain that there is enough space in the bins to store all $\mathbf{N}$ balls. Which bin does the robot put the last ball into?

Input

- The first line of input contains the two integers $\mathbf{B}$ and $\mathbf{N}$.
- The second line of input contains $\mathbf{B}$ integers. The $\mathbf{i}$th of these integers is $\mathbf{A_i}$, describing the number of balls that can fit into the $\mathbf{i}$th bin.

Output

Your program should output a single line containing a single integer: the bin into which the $\mathbf{N}$th ball is placed.

Sample Input 1

```
4 7
5 1 1 2
```

Sample Output 1

```
1
```

Sample Input 2

```
3 8
4 4 4
```

Sample Output 2

```
2
```

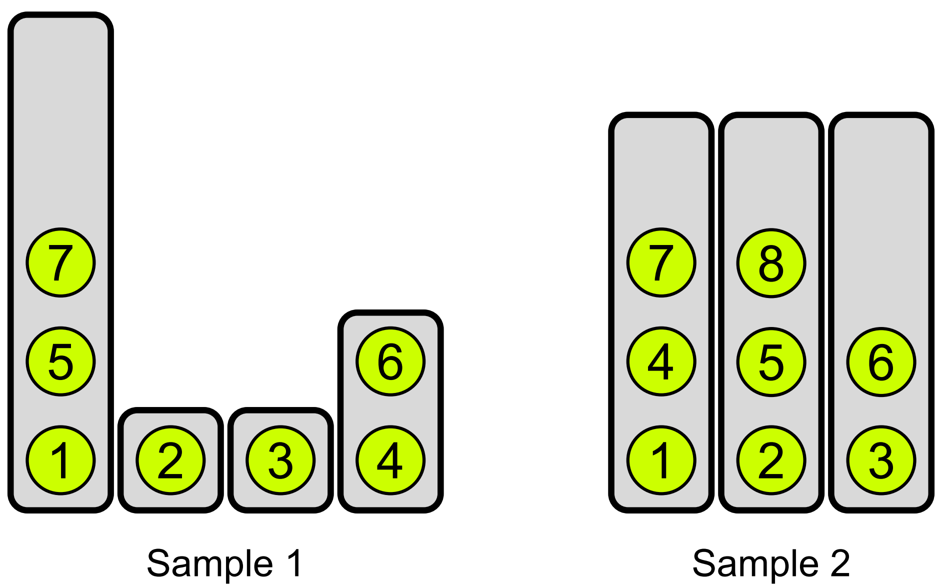
Explanation

In the first sample input, there are **B** = **4** bins and **N** = **7** balls to put away.

- The 1st, 2nd, 3rd and 4th balls go into the 1st, 2nd, 3rd and 4th bins respectively.
- The 5th ball goes into the 1st bin.
- The robot skips the 2nd and 3rd bins as they are full. The 6th ball goes into the 4th bin.
- The 7th ball goes into the 1st bin. This is the last ball, so the answer is 1.

In the second sample input, there are **B** = **3** bins and **N** = **8** balls to put away.

- The 1st, 2nd and 3rd balls go into the 1st, 2nd and 3rd bins respectively.
- The 4th, 5th and 6th balls go into the 1st, 2nd and 3rd bins respectively.
- The 7th and 8th balls go into the 1st and 2nd bins respectively. This is the last ball, so the answer is 2.



Subtasks & Constraints

For all test cases:

- $\mathbf{2 \leq B \leq 100\,000}$.
- $\mathbf{1 \leq N \leq 1\,000\,000\,000}$.
- $\mathbf{1 \leq A_i \leq 1\,000\,000\,000}$, for all $\mathbf{i}$.
- $\mathbf{N \leq A_1 + A_2 + \cdots + A_B}$. This means that the bins will have enough space to fit all $\mathbf{N}$ balls.
- $\mathbf{A_1 + A_2 + \cdots + A_B \leq 1\,000\,000\,000}$. This means that in total, the bins cannot fit more than $\mathbf{1\,000\,000\,000}$ balls.

Additionally:

- For Subtask 1 (15 marks), $\mathbf{A_i = A_j}$, for all $\mathbf{i}$ and $\mathbf{j}$. That is, all the bins are the same size.
- For Subtask 2 (25 marks), $\mathbf{N \leq 100\,000}$.
- For Subtask 3 (40 marks), $\mathbf{B \leq 1\,000}$.
- For Subtask 4 (20 marks), there are no special constraints.

There are no hints available for this problem.