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Boat Trips

H by bishop15

| Problem | Submissions | Leaderboard | Discussions |

Your submission will run against only preliminary test cases. Full test cases will run at the end of the day.

Alice owns a company that transports tour groups between two islands. She has n trips booked, and each trip i has p_i passengers. Alice has m boats for transporting people, and each boat's maximum capacity is c passengers.

Given the number of passengers going on each trip, determine whether or not Alice can perform all n trips using *no more than* m boats per individual trip. If this is possible, print `Yes`; otherwise, print `No`.

Input Format

The first line contains three space-separated integers describing the respective values of n (number of trips), c (boat capacity), and m (total number of boats).
The second line contains n space-separated integers describing the values of $p_0, p_1, \ldots, p_{n-1}$.

Constraints

- $1 \le n, c, m \le 100$
- $1 \le p_i \le 100$

Output Format

Print `Yes` if Alice can perform all n booked trips using no more than m boats per trip; otherwise, print `No`.

Sample Input 0

```
5 2 2
1 2 1 4 3
```

Sample Output 0

```
Yes
```

Explanation 0

Alice has $m = 2$ boats and a maximum capacity of $c = 2$ passengers per boat. This means she can transport *at most* $m \cdot c = 4$ passengers at a time.

There are $n = 5$ tour groups, and the largest tour group contains $p_3 = 4$ passengers. Because Alice will be able to transport each group using $\le m$ boats per group, we print `Yes`.

Sample Input 1

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

Sample Output 1

```
No
```

Explanation 1

Alice has $m = 2$ boats and a maximum capacity of $c = 1$ passenger per boat. This means she can transport *at most* $m \cdot c = 2$ passengers at a time.

There are $n = 5$ tour groups, and the largest tour group contains $p_3 = 4$ passengers. Because Alice does not have enough boats to transport a group

of four passengers, we print No .

Contest ends in 5 days

Submissions: 6921
Max Score: 9
Difficulty: Easy

Rate This Challenge:
★★★★★ Thanks!

More

Current Buffer (saved locally, editable)   ⑂ ⟳   [C#   ▾]   ⤢ ⚙

```csharp
1   using System;
2   using System.Collections.Generic;
3   using System.IO;
4   using System.Linq;
5   class Solution {
6
7       static void Main(String[] args) {
8           string[] tokens_n = Console.ReadLine().Split(' ');
9           int n = Convert.ToInt32(tokens_n[0]);
10          int c = Convert.ToInt32(tokens_n[1]);
11          int m = Convert.ToInt32(tokens_n[2]);
12          string[] p_temp = Console.ReadLine().Split(' ');
13          int[] p = Array.ConvertAll(p_temp,Int32.Parse);
14
15           int max_pas = c * m;
16              string ans = "Yes";
17
18              for (int i = 0; i < p.Length; i++)
19              {
20                  if (p[i] > max_pas)
21                  {
22                      ans = "No";
23                      break;
24                  }
25              }
26
27              Console.WriteLine(ans);
28
29      }
30  }
31
```

                                                                                    Line: 27 Col: 36

⬆ **Upload Code as File**   ☐ Test against custom input   [Run Code] [Submit Code]