



















All Contests > Week of Code 28 > Boat Trips

Boat Trips



Problem

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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 \boldsymbol{n} booked trips using no more than \boldsymbol{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 $\leq m$ boats per group, we print Yes .

Sample Input 1

5 1 2 1 2 1 4 1

Sample Output 1

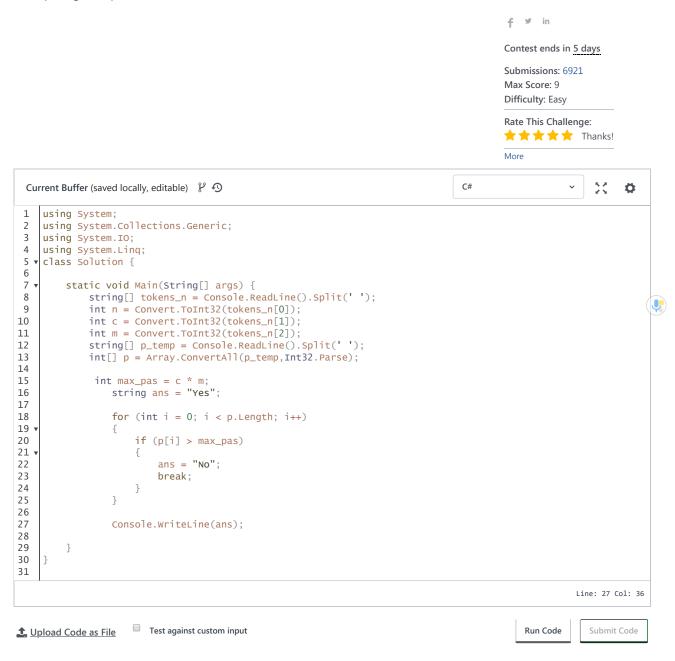
No

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.



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