Avoid the potholes

The new shoes “Air-manz 9x” has just been released and you *need* to get your hands on them. You want to drive your old rusty car to the mall, but hitting a single pothole will cause you to break down. Thankfully, your trusty friend Jon has given you a map with all of the potholes marked.

This isn’t a normal map (damn you Jon!). Jon gives you an array of numbers with each number representing how far you can jump. Example: 4 means you can jump 1 to 4 indexes in the array. Before you leave to go to the mall, you want to know if it’s possible to get to there without hitting any potholes.

Notes:

- ❏ *Potholes are represented by 0.*
- ❏ *Assume there are no negative numbers in the array.*

Input

There will be several test cases of input, keep reading integer arrays until end of input (null). You will be given an array of integers. Each number represents the maximum number of indexes you can jump. You need to figure out if it’s possible to traverse the array and reach the last index.

Output

For every array, print ‘true’ or ‘false’.

Sample Input

[3, 2, 1, 1, 2]
[3, 2, 1, 0, 1]

Sample Output

true
false