

Is it possible to sort the array?

Given an integer **D** and an array **A[]** of **N** integers. At each operation you can select the elements which are at index **i** and **(i + D)%N** and you can swap the both elements. The task is to check if it is possible to sort the array by performing the above operation zero or more times.

Note: 0 based indexing is used.

Example 1:

Input:

`N = 4, D = 2`

`A[] = {3, 2, 1, 5}`

Output:

Yes

Explanation:

We can sort the array in one operation.

1st operation: `swap(A[i], A[(i+D)%N])`

where `i = 0`.

Example 2:

Input:

`N = 2, D = 0`

`A[] = {5, 2}`

Output:

No

Explanation:

It is not possible to sort the array.

Your Task:

You don't need to read input or print anything. Complete the function **check()** which takes integer **D**, integer **N** and array **A[]** as input parameters and returns **true** if it is

possible to sort the array by performing the above operation zero or more times else return **false**.

Constraints:

$$1 \leq N \leq 10^5$$

$$1 \leq A[i] \leq N$$

$$0 \leq D < N$$