

“K”-value

You are given N integers that are arranged circularly. There are N ways to pick consecutive subsequences of length M ($M < N$). For any such subsequence we can find the “K”-value of that subsequence. “K”-value for a given subsequence is the Kth smallest number in that subsequence.

Task

Find the smallest “K”-value out of all possible subsequences.

$$1 < N \leq 100,000$$

$$1 \leq M < N$$

$$1 \leq K \leq M$$

$$0 \leq \text{any integer in the circle} \leq 2,147,483,647$$

Input

First line of the input will contain three integers N, M and K separated by spaces respectively. Second line of the input will contain N integers separated by spaces in clockwise order starting from an arbitrary location.

Output

Output should contain only one integer, smallest “K”-value out of all possible subsequences.

Note: There is a newline character at the end of the last line of the output.

Sample Input

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5 3 2
1 5 3 4 2
```

Sample Output

2

Sample Explanation

2nd smallest of subsequence 1, 5, 3 is 3
2nd smallest of subsequence 5, 3, 4 is 4
2nd smallest of subsequence 3, 4, 2 is 3
2nd smallest of subsequence 4, 2, 1 is 2
2nd smallest of subsequence 2, 1, 5 is 2
Therefore the smallest "K"-value is 2.