Modern Art

Time limit: 2.0s **Memory limit:** 256M

You are a modern artist looking to create modern art in modern ways.

You will paint on a canvas N tiles long. Each tile can take on two colours: white or red. Initially, all tiles are white.

The paintbrush you'll be using is modern as well. Painting a white tile will turn it red, and painting a red tile will turn it white. Since it's the modern trend, you are only willing to make strokes that paint **exactly** K consecutive tiles. You can make as many strokes as you'd like.

Even the value of modern art is determined in modern ways. The i-th tile from the left has a value of w_i, and the value of a painting is the sum of the values of all the red tiles. Being a curious artist, you wonder: of all the final paintings you can create, how many have a value of Y? Since this number may be huge, please output it modulo $998\,244\,353$.

Constraints

$1 \leq N \leq 10^4$

$1 \leq K \leq \min(N, 20)$

$0 \leq w_i, Y \leq 10^3$

Subtask 1 [5%]

$K = 1$

Subtask 2 [95%]

No additional constraints.

Input Specification

The first line will contain three integers, N, K, and Y.

The next line will contain N space-separated integers, the i-th of which represents w_i.

Output Specification

Output the number of paintings you can create with value equal to Y, modulo $998\,244\,353$.

Sample Input

```
3 2 9
3 9 6
```

Sample Output

```
1
```