Power Of Numbers Hard

Any number can be represented in 0s and 1s (eg. 7==111 , 5==101). The number of 1s in any number is called the power of that number .You are given an array of size n and you have to calculate the maximum sum of power of a subarray (contiguous) of length k .

But there are 2 rules:

1)If for any 1<= i <=n a[i] >=0 you will add the power (eg for number 9 you will add 2).

2)If for any 1<= i <=n a[i] < 0 you will subtract the power of Absolute(a[i]) (eg for number -9 you will subtract 2).

Absolute value of a number x is the non-negative value of x without regard to its sign.(eg absolute(-9) = 9)

Input Format

First line has two space separated integers n and k representing size of the array and size of the subarray respectively.

Next line contains n space separated integers which are the elements of the array.

Constraints

1 <= k <= n <= 1000000 -1e12 <= a[i] <= 1e12

Output Format

A single line representing the maximum sum of power of a subarray of length k.

Sample Input 0

```
3 2
1 -1 3
```

Sample Output 0

```
1
```

Explanation 0

Power of all different elements of the array are {1,-1,2}. Maximum power of subarray of size 2 is from index 2 to index 3.