

Problem D. Trie Easy

Input file: **standard input**
Output file: **standard output**
Time limit: **1 second**
Memory limit: **256 megabytes**

Given an array A of N integers and an integer K , find out how many contiguous subarrays of the array have XOR less than K .

Input

The first line contains 2 integers N ($1 \leq N \leq 10^5$) and K ($1 \leq K \leq 10^5$), separated by a space. The next line contains N space separated integers, the array A ($0 \leq A_i \leq 10^5$).

Output

Print the number of subarrays with XOR less than K

Examples

standard input	standard output
5 3 1 5 2 3 2	5
10 10 8 1 5 11 2 4 9 16 0 5	22