

Even Subarray

A subarray is a contiguous portion of an array. Given an array of integers, determine the number of distinct subarrays that can be formed having at most a given number of odd elements. Two subarrays are distinct if they differ at even one position in their contents.

Example

numbers = [1, 2, 3, 4]

k = 1

The following is a list of the 8 distinct valid subarrays having no more than 1 odd element:

[[1], [2], [3], [4], [1,2], [2, 3], [3, 4], [2, 3, 4]]

Function Description

Complete the function *evenSubarray* in the editor below.

evenSubarray has the following parameter(s):

int numbers[n]: an array of integers

int k: the maximum number of odd elements that can be in a subarray

Return

int: the number of distinct subarrays that can be formed as described

Constraints

$1 \leq n \leq 1000$

$1 \leq k \leq n$

$1 \leq \text{numbers}[i] \leq 250$

Input Format For Custom Testing

Input from stdin will be processed as follows and passed to the function.

The first line contains an integer n , the number of elements in *numbers*.

Each of the next n lines contain an element *numbers*[i] where $0 \leq i < n$.

The next line contains an integer k , the maximum number of odd elements that can be in a subarray.

Sample Case 0

Sample Input 0

STDIN Function

4 \rightarrow numbers[] size $n = 4$

6 \rightarrow numbers = [6, 3, 5, 8]

3

5

8

1 $\rightarrow k = 1$

Sample Output 0

6

Explanation 0

The distinct subarrays that can be formed are:

0 odd elements: [6] and [8].

1 odd element: [6, 3], [3], [5], and [5, 8]

Sample Case 1

Sample Input 1

STDIN Function

5 \rightarrow numbers[] size $n = 5$

2 \rightarrow numbers = [2, 1, 2, 1, 3]

1

2

1

3

2 \rightarrow k = 2

Sample Output 1

10

Explanation

The distinct subarrays that can be formed are:

0 odd elements: [2]

1 odd element: [2, 1], [1], [2, 1, 2], [1, 2], and [3].

2 odd elements: [2, 1, 2, 1], [1, 2, 1], [2, 1, 3], and [1, 3]