Add To Even (Part B)

You are given a list of n positive integers $a\_1, a\_2, ..., a\_n$ **and** an integer k

Output the number of unique pairs of integers in the list such that that they add to an even number and the two numbers are at most k numbers away from each other in the list. **i.e.** the number of pairs (i, j) such that $i < j$, $a\_i + a\_j$ is even and $j - i \le k$.

NOTE: Two pairs are unique to each other if and only if at least one of the indices of the numbers of the first pair is different to the second pair.

Input

Your first line will contain two space-separated integers n and k.

Your second line will contain n space-separated integers representing $a\_1, a\_2, ..., a\_n$

$1 \le k < n \le 100,000$

Output

Your first and only line of output should contain a single integer representing the number of unique pairs of integers with the even sum and are only k indices apart in the original list.

Example

Input 1
3 1
1 1 1
Output 1
2
Input 2
6 4
2 12 3 14 29 4
Output 2
6