Minimum Product Array

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TCS codevita 2016 round 1: The task is to find the minimum sum of Products of two arrays of the same size, given that k modifications are allowed on the first array. In each modification, one array element of the first array can either be increased or decreased by 2.Note- the product sum is Summation (A[i]*B[i]) for all i from 1 to n where n is the size of both arrays.

Input Format: First line of the input contains n and k delimited by white space Second line contains the Array A (modifiable array) with its values delimited by spaces Third line contains the Array B (non-modifiable array) with its values delimited by spaces.
Output Format:

Output the minimum sum of products of the two arrays.

Constraints:

1 ≤ N ≤ 10^50 ≤ |A[i]|, |B[i]| ≤ 10^50 ≤ K ≤ 10^9

Sample	Input	Output
1.	3 5 1 2 -3 -2 3 -5	-31
2.	5 3 2 3 4 5 4 3 4 2 3 2	25

Explanation for sample 1:

Here total numbers are 3 and total modifications allowed are 5. So we modified A[2], which is -3 and increased it by 10 (as 5 modifications are allowed). Now final sum will be (1 * -2) + (2 * 3) + (7 * -5) -2 + 6 - 35 -31

-31 is our final answer.

Explanation for sample 2:

Here total numbers are 5 and total modifications allowed are 3. So we modified A[1], which is 3 and decreased it by 6 (as 3 modifications are allowed). Now final sum will be (2 * 3) + (-3 * 4) + (4 * 2) + (5 * 3) + (4 * 2) 6 - 12 + 8 + 15 + 8 25

25 is our final answer