03 Hr 08 Min 10 Sec

Coding Area

ONLINE EDITOR (B)

Count Pairs

Problem Description

Given an array of integers A, and an integer K find number of happy elements.

Element X is happy if there exists at least 1 element whose difference is less than K i.e. an element X is happy, if there is another element in the range [X-K, X+K] other than X itself.

Constraints

1 <= N <= 10^5

0 <= K <= 10^5

0 <= A[i] <= 10^9

Input

First line contains two integers N and K where N is size of the array and K is a number as described above

Second line contains N integers separated by space.

Output

Print a single integer denoting the total number of happy elements.

Time Limit

1

Examples

Example 1

Input

6 3

5 5 7 9 15 2

Output

5

Explanation

Other than number 15, everyone has at least 1 element in the range [X-3, X+3]. Hence they are all happy elements. Since these five are in number, the output is 5.

Example 2

Input

3 2

1 3 5

Output

3

Explanation

All numbers have at least 1 element in the range [X-2, X+2]. Hence they are all happy elements. Since these three are in number, the output is 3.

Upload Solution [Question : B]

☐ I, **singam reddy** confirm that the answer submitted is my own.

☐ Took help from online sources (attributions)

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