

Pair Sum

Problem ID: pairsum

Time limit: 2 seconds

Every semester the CITS3001 lab demonstrators run a warm-up contest, and every semester the first problem is the same: it exists only so that everybody can check that their login works and that they can submit a solution.

You are given a list of n integers $a_1, a_2, \dots, a_n$ and a target value k . Count the number of *unordered* pairs of positions (i, j) with $i < j$ such that $a_i + a_j = k$.

Note that n can be large, so the obvious solution that checks every pair will be too slow. A single pass with a hash table (dictionary) is enough.

Input

The first line contains two integers n and k ($1 \leq n \leq 2 \cdot 10^5$, $-2 \cdot 10^9 \leq k \leq 2 \cdot 10^9$). The second line contains n integers $a_1, \dots, a_n$ ($-10^9 \leq a_i \leq 10^9$).

Output

Output a single integer: the number of pairs $i < j$ with $a_i + a_j = k$.

Sample Input 1

5 7
1 6 3 4 3

Sample Output 1

3

Sample Input 2

4 4
2 2 2 2

Sample Output 2

6
