Divisible Sum Pairs

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Problem Submissions Leaderboard Discussions Editorial

You are given an array of n integers, $a_0, a_1, \ldots, a_{n-1}$, and a positive integer, k. Find and print the number of (i, j) pairs where $i < j$ and $a_i + a_j$ is divisible by k.

Input Format

The first line contains 2 space-separated integers, n and k, respectively.
The second line contains n space-separated integers describing the respective values of $a_0, a_1, \ldots, a_{n-1}$.

Constraints

- $2 \leq n \leq 100$
- $1 \leq k \leq 100$
- $1 \leq a_i \leq 100$

Output Format

Print the number of (i, j) pairs where $i < j$ and $a_i + a_j$ is evenly divisible by k.

Sample Input

```
6 3
1 3 2 6 1 2
```

Sample Output

```
5
```

Explanation

Here are the 5 valid pairs:

- $(0, 2) \rightarrow a_0 + a_2 = 1 + 2 = 3$
- $(0, 5) \rightarrow a_0 + a_5 = 1 + 2 = 3$
- $(1, 3) \rightarrow a_1 + a_3 = 3 + 6 = 9$
- $(2, 4) \rightarrow a_2 + a_4 = 2 + 1 = 3$
- $(4, 5) \rightarrow a_4 + a_5 = 1 + 2 = 3$

Submissions:91340

Max Score:10
Difficulty: Easy

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Current Buffer (saved locally, editable) C++14

```cpp
#include <iostream>
using namespace std;

int main()
{
    int n=0, k=0, a[100], j=0, Count=0;
    cin>>n;
    cin>>k;
    if (n>=2 && n<=100 && k>=1 && k<=100)
    {
      for(int i=0; i<n; ++i)
         cin>>a[i];
      for(int i=0; i<n-1; ++i)
         for(int j=i+1; j<n; ++j)
            if (i<j && (a[i]+a[j])%k==0)
               Count++;
               //cout<<a[i]<<" "<<a[j]<<endl;
    cout<<Count<<endl;
    }
    return 0;
}

```

Line: 1 Col: 1

Upload Code as File Test against custom input Run Code Submit Code