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‹ Basic Programming Challenges

Divisible Pairs Sum 🔖

by wanbo

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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 evenly 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:

- $(0, 2) \rightarrow a_0 + a_2 = 1 + 2 = 3$

- $(0, 5) \rightarrow a_0 + a_5 = 1 + 2 = 3$

- $(1, 3) \rightarrow a_1 + a_3 = 3 + 6 = 9$

- $(2, 4) \rightarrow a_2 + a_4 = 2 + 1 = 3$

- $(4, 5) \rightarrow a_4 + a_5 = 1 + 2 = 3$

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Submissions: 13744
Max Score: 20
Difficulty: Easy

Current Buffer (saved locally, editable)

C#

```csharp
1  using System;
2  using System.Collections.Generic;
3  using System.IO;
4  using System.Linq;
5  class Solution {
6
7      static void Main(String[] args) {
8                  string[] tokens_n = Console.ReadLine().Split(' ');
9          int n = Convert.ToInt32(tokens_n[0]);
10         int k = Convert.ToInt32(tokens_n[1]);
11         string[] a_temp = Console.ReadLine().Split(' ');
12         int[] a = Array.ConvertAll(a_temp, e => int.Parse(e));
13
14         int ans = 0;
15         for (int i = 0; i < n-1; i++)
16         {
17             for (int j = i + 1; j < n; j++)
18             {
19                 if ((a[i] + a[j]) % k == 0)
20                 {
21                     ans++;
22                 }
23             }
24         }
25
26         Console.WriteLine(ans);
27
28         Console.ReadLine();
29
30     }
31 }
32
```

Line: 29 Col: 1

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

Congrats, you solved this challenge!

✔ Test Case #0	✔ Test Case #1	✔ Test Case #2
✔ Test Case #3	✔ Test Case #4	✔ Test Case #5
✔ Test Case #6	✔ Test Case #7	✔ Test Case #8
✔ Test Case #9	✔ Test Case #10	✔ Test Case #11
✔ Test Case #12	✔ Test Case #13	✔ Test Case #14
✔ Test Case #15	✔ Test Case #16	✔ Test Case #17
✔ Test Case #18	✔ Test Case #19	

Next Challenge

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