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**⊘** dgrabski ∨

Practice > Algorithms > Implementation > Divisible Sum Pairs

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## Divisible Sum Pairs



by wanbo

Problem

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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 divisible by k.

**Input Format** 

The first line contains  ${f 2}$  space-separated integers,  ${m n}$  and  ${m k}$ .

The second line contains n space-separated integers describing the values of  $ar[a_0, a_1, \ldots, a_{n-1}]$ .

Constraints

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

**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

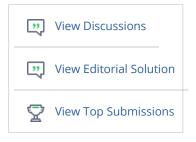
Here are the **5** valid pairs when k = 3:

- $(0,2) \rightarrow a_0 + a_2 = 1 + 2 = 3$
- $(0,5) \rightarrow a_0 + a_5 = 1 + 2 = 3$

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

Easy Submitted 101672 times Max Score 10

## Need Help?



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**Suggest Edits** 

f ⊌ in

```
Current Buffer (saved locally, editable) & 49
                                                                             lava 8
                                                                                                             Ö
1 ▼ import java.io.*;
   import java.util.*;
   import java.text.*;
   import java.math.*;
   import java.util.regex.*;
6
7 ▼ public class Solution {
8
9 ▼
        static int divisibleSumPairs(int n, int k, int[] ar) {
10
            // Complete this function
11
            int result = 0;
            for (int i = 0; i < ar.length; i++) {</pre>
12 ▼
                 for (int j = i+1; j < ar.length; j++) {</pre>
13 ▼
14 ▼
                     if ((ar[i] + ar[j])%k == 0) {
15
                         result++;
16
17
                 }
            }
18
19
20
            return result;
21
        }
22
23 •
        public static void main(String[] args) {
24
            Scanner in = new Scanner(System.in);
25
            int n = in.nextInt();
            int k = in.nextInt();
```

```
27 ▼
             int[] ar = new int[n];
28 ▼
             for(int ar_i = 0; ar_i < n; ar_i++){</pre>
29 ▼
                 ar[ar_i] = in.nextInt();
30
             int result = divisibleSumPairs(n, k, ar);
31
             System.out.println(result);
32
33
        }
   }
34
35
                                                                                                    Line: 20 Col: 23
```

<u>**1**</u> <u>Upload Code as File</u> ☐ Test against custom input

Run Code

Submit Code

## Congrats, you solved this challenge!

Challenge your friends: f 💆 in

- ✓ Test Case #0
- ✓ Test Case #3
- ✓ Test Case #6
- ✓ Test Case #9
- ✓ Test Case #12
- ✓ Test Case #15
- ✓ Test Case #18

- ✓ Test Case #1
- ✓ Test Case #4
- ✓ Test Case #7
- ✓ Test Case #10
- ✓ Test Case #13
- ✓ Test Case #16
- ✓ Test Case #19

- ✓ Test Case #2
- ✓ Test Case #5
- ✓ Test Case #8
- Test Case #11
- ✓ Test Case #14
- ✓ Test Case #17

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