Divisible Sum Pairs

Given an array of integers and a positive integer k, determine the number of (i, j) pairs where $i < j$ and $ar[i] + ar[j]$ is divisible by k.

Example

$ar = [1, 2, 3, 4, 5, 6]$
$k = 5$

Three pairs meet the criteria: $[1, 4]$, $[2, 3]$, and $[4, 6]$.

Function Description

Complete the divisibleSumPairs function in the editor below.

divisibleSumPairs has the following parameter(s):

- int n: the length of array ar
- int ar[n]: an array of integers
- int k: the integer divisor

Returns

- int: the number of pairs

Input Format

The first line contains 2 space-separated integers, n and k.

The second line contains n space-separated integers, each a value of $arr[i]$.

Constraints

- $2 \leq n \leq 100$
- $1 \leq k \leq 100$
- $1 \leq ar[i] \leq 100$

Sample Input

```
STDIN        Function
-----        --------
6 3          n = 6, k = 3
1 3 2 6 1 2   ar = [1, 3, 2, 6, 1, 2]
```

Sample Output

```
5
```

Explanation

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

- $(0, 2) \rightarrow ar[0] + ar[2] = 1 + 2 = 3$

- $(0, 5) \rightarrow ar[0] + ar[5] = 1 + 2 = 3$
- $(1, 3) \rightarrow ar[1] + ar[3] = 3 + 6 = 9$
- $(2, 4) \rightarrow ar[2] + ar[4] = 2 + 1 = 3$
- $(4, 5) \rightarrow ar[4] + ar[5] = 1 + 2 = 3$

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```
#!/bin/python3

import math
import os
import random
import re
import sys

#
# Complete the 'divisibleSumPairs' function below.
#
# The function is expected to return an INTEGER.
# The function accepts following parameters:
#  1. INTEGER n
#  2. INTEGER k
#  3. INTEGER_ARRAY ar
#

def divisibleSumPairs(n, k, ar):
    # Write your code here
    count = 0
    for i in range(len(ar)):
        for j in range(i+1, len(ar)):
            if (ar[i] + ar[j]) % k == 0:
                count += 1
    return count

if __name__ == '__main__':
    fptr = open(os.environ['OUTPUT_PATH'], 'w')

    first_multiple_input = input().rstrip().split()

    n = int(first_multiple_input[0])

```

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Next Challenge

- Test case 0
- Test case 1
- Test case 2
- Test case 3
- Test case 4
- Test case 5
- Test case 6

Compiler Message

```
Success
```

Input (stdin) Download

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

Expected Output Download

```
5
```