Problem B. Divisible Sum Pairs

OS Linux

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

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

Input		Output
STDIN ----- 6 3 1 3 2 6 1 2	Function -------- n = 6, k = 3 ar = [1, 3, 2, 6, 1, 2]	5

Explanation

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

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