2. In this part you will write an assembly program on MARS for finding and printing all divisible sum pairs as explained below:

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]
```

Explanation

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

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