# Non-Divisible Subset

Given a set of distinct integers, print the size of a maximal subset of $S$ where the sum of any $2$ numbers in $S'$ is *not* evenly divisible by $k$.

**Example**
$S = [19, 10, 12, 10, 24, 25, 22]$ $k = 4$

One of the arrays that can be created is $S'[0] = [10, 12, 25]$. Another is $S'[1] = [19, 22, 24]$. After testing all permutations, the maximum length solution array has $3$ elements.

**Function Description**

Complete the *nonDivisibleSubset* function in the editor below.

nonDivisibleSubset has the following parameter(s):

- *int S[n]*: an array of integers
- *int k*: the divisor

**Returns**

- *int:* the length of the longest subset of $S$ meeting the criteria

**Input Format**

The first line contains $2$ space-separated integers, $n$ and $k$, the number of values in $S$ and the *non* factor. The second line contains $n$ space-separated integers, each an $S[i]$, the unique values of the set.

**Constraints**

- $1 \leq n \leq 10^5$
- $1 \leq k \leq 100$
- $1 \leq S[i] \leq 10^9$
- All of the given numbers are distinct.

**Sample Input**

```
STDIN    Function
-----    --------
4 3      S[] size n = 4, k = 3
1 7 2 4  S = [1, 7, 2, 4]
```

**Sample Output**

```
3
```

**Explanation**

The sums of all permutations of two elements from $S = \{1, 7, 2, 4\}$ are:

```
1 + 7 = 8
1 + 2 = 3
1 + 4 = 5
7 + 2 = 9
7 + 4 = 11
2 + 4 = 6
```

Only $S' = \{1, 7, 4\}$ will not ever sum to a multiple of $k = 3$.