

It's a Mod, Mod, Mod, Mod World 2

Input file: standard input
Output file: standard output
Time limit: 1 second
Memory limit: 1024 megabytes

A set A consisting of N pairwise distinct integers is given. The goal is to choose an appropriate subset of A and an integer K greater than 1 so that the remainders from dividing each element of the subset by K are all equal.

Find the size of the largest suitable subset.

Input

The first line of input contains N , denoting the size of set A . ($1 \leq N \leq 20\,000$)

The second line of input contains A_1, A_2, \dots, A_N , separated by spaces. ($1 \leq A_i \leq 10^9$)

All elements of A are distinct.

Output

Print the size of the largest suitable subset.

Example

standard input	standard output
5 5 7 8 10 11	3

Note

The subset $\{5, 8, 11\}$ of A and $K = 3$ can be chosen, resulting in a subset of size 3.

It is impossible to select a subset whose size is greater than or equal to 4, so the size of the largest possible subset is 3.