

Mimi and Christmas Cake

For Christmas, Mimi got a fruit cake from her parents. The cake is sliced into N slices, and the i^{th} slice has f_i pieces of fruit on it. However, as Mimi is trying to lose weight as a New Year's resolution, she will only eat slices which have a prime number of fruits on them. Help Mimi determine how many slices of cake she can eat.

Constraints

Subtask 1 [10%]

$$1 \leq N \leq 100$$

$$1 \leq f_i \leq 100$$

Subtask 2 [10%]

$$1 \leq N \leq 10^5$$

$$1 \leq f_i \leq 1\,000$$

Subtask 3 [80%]

$$1 \leq N \leq 10^5$$

$$1 \leq f_i \leq 10^5$$

Input Specification

The first line of input will contain a single integer, N , the number of slices

The next and final line of input will contain N space-separated integers: f_1, f_2, \dots, f_N , the number of pieces of fruit on the i th slice of cake.

Output Specification

A single integer, the number of slices of cake Mimi can eat.

Input Specification

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3
1 5 8
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Output Specification
