GlobeX Cup '18 J3 - Good Numbers

Time limit: 1.0s **Memory limit:** 64M

Jonathan is writing a problem for the GlobeX Canada Cup. However, he lost his ideas for the first 3 problems of the junior division. So, Jonathan is making a problem about the numbers he loves the most: prime numbers. A good number is defined as an integer such that it is prime, and the sum of its digits is also prime. A number p is prime if it only has two divisors, 1 and itself (p).

Given a list of N integers, find out how many of them are good numbers.

Input Specification

The first line will contain the integer N $(1 \leq N \leq 5\,000)$, the number of integers to test.

The next N lines will each contain an integer, x $(1 \leq x \leq 10^5)$, the integer to test.

Output Specification

On the first line, output one integer, the number of good numbers in the list.

Constraints

Subtask 1 [30%]

$x \leq 100$

Subtask 2 [70%]

No additional constraints.

Sample Input

```
3
3
23
51
```

Sample Output

```
2
```