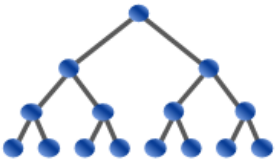
USA Computing Olympiad



USACO 2016 JANUARY CONTEST, SILVER
PROBLEM 2. SUBSEQUENCES SUMMING TO SEVENS

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Contest has ended.

Log in to allow submissions in analysis mode

English (en)

Farmer John's N cows are standing in a row, as they have a tendency to do from time to time. Each cow is labeled with a distinct integer ID number so FJ can tell them apart. FJ would like to take a photo of a contiguous group of cows but, due to a traumatic childhood incident involving the numbers $1 \ldots 6$, he only wants to take a picture of a group of cows if their IDs add up to a multiple of 7.

Please help FJ determine the size of the largest group he can photograph.

INPUT FORMAT (file div7.in):

The first line of input contains N ($1 \leq N \leq 50,000$). The next N lines each contain the N integer IDs of the cows (all are in the range $0 \ldots 1,000,000$).

OUTPUT FORMAT (file div7.out):

Please output the number of cows in the largest consecutive group whose IDs sum to a multiple of 7. If no such group exists, output 0.

You may want to note that the sum of the IDs of a large group of cows might be too large to fit into a standard 32-bit integer. If you are summing up large groups of IDs, you may therefore want to use a larger integer data type, like a 64-bit "long long" in C/C++.

SAMPLE INPUT:

```
7
3
5
1
6
2
14
10
```

SAMPLE OUTPUT:

```
5
```

In this example, 5+1+6+2+14 = 28.

Problem credits: Brian Dean

Contest has ended. No further submissions allowed.