

## Problem C

### Minimum Coin Exchange Problem

**Input File: coins.txt**

Six kinds of coins are available currently in Japanese currency: 1 yen coins, 5 yen coins, 10 yen coins, 50 yen coins, 100 yen coins and 500 yen coins. Suppose that we have unlimited number of each coins, we define  $m(p)$  as the minimum number of coins required for a given amount of transaction  $p$  ( $1 < p < 500$ ). For example, a transaction of 400 yen could be accomplished by paying one 500 yen coin and receiving one 100 yen coin, so there are two coins involved in this transaction. Since this is the least number of coins possible for a transaction of 400 yen,  $m(400) = 2$ .

Let us presume that in year 20xx, there are  $n + 1$  types of coins in Japanese currency: 1 yen coin,  $a_1$  yen coin,  $\dots$   $a_n$  yen coin (in the ascending order). As before, we compute  $m(p)$  for each  $p$  in  $1 < p < a_n$ , compute the maximum of  $m(p)$ .

### Input and Output

Each case is given in one line, consisting of an integer  $n$  followed by  $a_1, \dots, a_n$ . The end of test cases is indicated by the end of file.

You should output  $m(p)$  in one line for each test case.

### Sample Input

```
2 5 10
2 4 7
3 7 100 103
```

### Output for the Sample Input

```
3
2
9
```