



## 2040 - Multiple

Europe - Southeastern - 2000/2001

Write a program that, given a natural number  $N$  between 0 and 4999 (inclusively), and  $M$  distinct decimal digits  $X_1, X_2, \dots, X_M$  (at least one), finds the smallest strictly positive multiple of  $N$  that has no other digits besides  $X_1, X_2, \dots, X_M$  (if such a multiple exists).

### Input

The input file has several data sets separated by an empty line, each data set having the following format:

- On the first line - the number  $N$
- On the second line - the number  $M$
- On the following  $M$  lines - the digits  $X_1, X_2, \dots, X_M$ .

### Output

For each data set, the program should write to standard output on a single line the multiple, if such a multiple exists, and 0 otherwise.

### Sample Input

```
22
3
7
0
1

2
1
1
```

### Sample Output

```
110
0
```

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