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## Numbers with no forbidden prefixes

P83364\_en

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Write a backtracking program to print all the  $n$ -digit numbers such that none of its prefixes (the whole number included) is a multiple of any of  $m$  given forbidden divisors  $d_1, \dots, d_m$ .

For instance, if  $n = 3$ ,  $m = 6$  and the forbidden divisors are 2, 3, 5, 7, 11 and 19, then 137 is allowed, because none of its three prefixes 1, 13 and 137 is a multiple of any  $d_i$ . By contrast, 433 is not allowed, because some of its three prefixes 4, 43 and 433 is multiple os some  $d_i$  (4 is multiple of 2).

### Input

Input consists of several cases. Each case begins with  $n$  and  $m$ , followed by  $m$  different integer numbers between 2 and 1000. You can assume  $1 \leq n \leq 9$  and  $1 \leq m \leq 15$ .

### Output

For every case, print all the numbers with exactly  $n$  digits and no forbidden prefixes, one per line and in increasing order. Print a line with 10 dashes at the end of each case.

#### Sample input

```
3 6
2 3 5 7 11 19
1 1
2
2 6
3 4 7 11 12 13
2 9
2 3 5 7 9 11 13 17 19
9 10
199 191 193 17 13 11 7 5 3 2
```

#### Sample output

```
131
137
139
173
179
-----
1
3
5
7
9
-----
10
17
19
23
25
29
50
53
58
59
-----
197399999
197933933
197933993
197933999
-----
```

**Problem information**

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