Circular Numbers

Time limit: 1.0s **Memory limit:** 16M

An (XY, D)-CIRCULAR NUMBER is a number whose last two digits are X and Y, and multiplication of the number by the single digit D is equivalent to moving the last two digits (XY) to the beginning of the number. For example, the number 132832080200501253 is a $(53, 4)$-CIRCULAR NUMBER because $132832080200501253 \times 4 = 531328320802005012$. Write a program that asks for a two-digit number XY and a single digit D, and prints the **smallest** (XY, D)-CIRCULAR NUMBER or prints a message `NONE` if none exists. It is guaranteed that your number will not exceed 255 digits.

Input Specification

An integer number, N, indicating the total number of cases. On each of the next N lines are the two-digit number XY and the single digit D, separated by a space.

Output Specification

The smallest circular number (if one exists with less than 255 digits) that satisfies the given condition; otherwise output the message `NONE`.

Sample Input

```
1
53 4
```

Sample Output

```
132832080200501253
```