H

Fractions

Input: Standard Input
Output: Standard Output

You might find it interesting that the digits 1, 2,…9 may be arranged to form two decimal numbers whose ratio is $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \ldots \frac{1}{9}$. For example:

$$\frac{7293}{14586} = \frac{1}{2},\ \frac{5832}{17496} = \frac{1}{3},\ \ldots,\ \frac{6381}{57429} = \frac{1}{9}$$

This fact is also true for most other number systems. So in general we can say that the digits 1, 2, …, D may be arranged to form two (D+1) based numbers whose ratio is $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \ldots \frac{1}{D}$. In this problem you will be asked to find such fractions. In other words given the base B and denominator N you will have to find two B-based integers P and Q (Both of them combined should use the digits 1, 2, 3, …, B-1 exactly once.) such that:

$$\frac{P}{Q} = \frac{1}{N}$$

You can safely assume that the digits larger than value 9 are represented by capital English letters starting from 'A'. So the digits of 12 based number system are '1', '2', '3', '4', '5', '6', '7', '8', '9', 'A', 'B' (Zeros are not allowed in this problem). Similarly, the digits of 27 based number system are '1', '2', '3',…, 'L', 'M', 'N', 'O', 'P', 'Q'.

Input

The input file contains at most 300 lines of inputs. Each line contains two decimal integers B (1<B<28) and N (1<N<B).

Input is terminated by a set where the value of B and N is zero. This set should not be processed.

Output

For each set of input produce one line of output. This line contains the two input values followed by two B-based integers separated by a '/' (front slash). The two B-based integers denote the values of P and Q respectively. So they actually denote the fraction $\frac{P}{Q}$. There will be no such inputs for which P and Q cannot be found. If there is more than one solution any one of them will do.

Sample Input	Output for Sample Input
10 2 10 9 14 4 0 0	10 2 7932/15864 10 9 8361/75249 14 4 CD5621/39B7A84

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