2956 Alternative Scale of Notation

One may define a map of strings over an alphabet $\sum_B = \{C_1, C_2, \ldots C_B\}$ of size B to non-negative integer numbers, using characters as digits $C_1 = 0, C_2 = 1, \ldots, C_B = B - 1$ and interpreting the string as the representation of some number in a scale of notation with base B. Let us denote this map by U_B, for a string $\alpha[1..n]$ of length n we put

$$U_B(\alpha) = \sum_{i=0}^{n-1} \alpha[n-i] \cdot B^i.$$

For example, $U_3(1001) = 1 \cdot 27 + 0 \cdot 9 + 0 \cdot 3 + 1 \cdot 1 = 28$.

However, this correspondence has one major drawback: it is not one-to-one. For example,

$$28 = U_3(1001) = U_3(01001) = U_3(001001) = \ldots,$$

infinitely many strings map to the number 28.

In mathematical logic and computer science this may be unacceptable. To overcome this problem, the alternative interpretation is used. Let us interpret characters as digits, but in a slightly different way: $C_1 = 1, C_2 = 2, \ldots, C_B = B$. Note that now we do not have 0 digit, but rather we have a rudiment B digit. Now we define the map V_B in a similar way, for each string $\alpha[1..n]$ of length n we put

$$V_B(\alpha) = \sum_{i=0}^{n-1} \alpha[n-i] \cdot B^i$$

For an empty string ε we put $V_B(\varepsilon) = 0$.

This map looks very much like U_B, however, the set of digits is now different. So, for example, we have $V_3(1313) = 1 \cdot 27 + 3 \cdot 9 + 1 \cdot 3 + 3 \cdot 1 = 60$.

It can be easily proved that the correspondence defined by this map is one-to-one and onto. Such a map is called *bijective*, and it is well known that every bijective map has an inverse. Your task in this problem is to compute the inverse for the map V_B. That is, for a given integer number x you have to find the string α, such that $V_B(\alpha) = x$.

Input

Input consists of several datasets. The first line of each dataset contains B ($2 \le B \le 9$). The second line contains an integer number x given in a usual decimal scale of notation, $0 \le x \le 10^{100}$.

Output

For each dataset, output such string α, consisting only of digits from the set $\{1, 2, \ldots, B\}$, that $V_B(\alpha) = x$. Each dataset should be outputed in a different line.

Sample Input

```
3
60
3
0
3
60
```

Sample Output

```
1313

1313
```