

Problem Statement

The goal is to change a given number from one base to another.

Input Format

The first line contains an integer which is the base that the number N is represented in (base#1).

The second line contains an integer which is the base that the number N should be transformed into (base#2).

The third line contains a value which represents N in the specified base.

Note that digits after 9 for higher bases are represented by lower case alphabetic characters (e.g. "ten" is a, "eleven" is b etc.).

Output Format

Print out number N in the appropriate base.

Constraints

$$2 \leq \text{base\#1} \leq 32$$

$$2 \leq \text{base\#2} \leq 32$$

$$\text{abs}(N_{10}) \leq 10000000000000000$$

Sample Input

5

6

43

Sample Output

35