
Base62

Input file: **standard input**
Output file: **standard output**
Time limit: **1 second**
Memory limit: **512 megabytes**

As we already know, base64 is a common binary-to-text encoding scheme. Here we define a special series of positional systems that represent numbers using a base (a.k.a. radix) of 2 to 62. The symbols '0' – '9' represent zero to nine, and 'A' – 'Z' represent ten to thirty-five, and 'a' – 'z' represent thirty-six to sixty-one. Now you need to convert some integer z in base x into base y .

Input

The input contains three integers x, y ($2 \leq x, y \leq 62$) and z ($0 \leq z < x^{120}$), where the integer z is given in base x .

Output

Output the integer z in base y .

Example

standard input	standard output
16 2 FB	11111011