Problem I. Base62

Input file: `standard input`
Output file: `standard output`

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