Convert to Base

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given **three numbers** T, N and X.

- If $T = 1$ then Convert N from base X to **decimal**.
- If $T = 2$ then Convert N from **decimal** to base X.

Note: As X may exceed base **10** then the number N can contain digits from **0** to **9** and from **A** to **Z**. Such that Value of **A** $=$ **10**, value of **B** $=$ **11** and so on.

Input

First line contains a number T $(1 \leq T \leq 2)$ type of conversion.

Second line contains two numbers N and X :

- If $T = 1$ then $(1 \leq |N| \leq 10, 2 \leq X \leq 35)$ where |N| is length of number.
- If $T = 2$ then $(1 \leq N \leq 10^9, 2 \leq X \leq 35)$.

Output

Print the answer required above.

Examples

standard input	standard output
1 101 2	5
2 5 2	101