Problem A. SQRT Problem

Input file:	`standard input`
Output file:	`standard output`
Time limit:	3 seconds
Memory limit:	256 megabytes

Miss Burger has three positive integers n, a, and b. She wants to find a positive integer solution x ($1 \le x \le n-1$) that satisfies the following two conditions:

- $x^2 \equiv a \pmod{n}$
- $\lfloor \sqrt[3]{x^2} \rfloor = b$

Additionally, it is guaranteed that n is an odd number and $\gcd(a, n) = 1$. Here $\gcd(x, y)$ denotes the greatest common divisor of x and y. We also guarantee that there exists a unique solution.

Note that $\lfloor x \rfloor$ represents the largest integer not exceeding x, such as $\lfloor 0.5 \rfloor = 0$, $\lfloor 11.3 \rfloor = 11$, $\lfloor 101.9 \rfloor = 101$, $\lfloor 99 \rfloor = 99$, $\lfloor 0 \rfloor = 0$, $\lfloor 2 \rfloor = 2$.

Input

The first line contains a single integer n ($3 \le n \le 10^{100} - 1$).

The second line contains a single integer a ($1 \le a \le n - 1$).

The third line contains a single integer b ($1 \le b \le n - 1$).

Output

Output a single integer denoting the solution x.

Examples

standard input	standard output
9 4 3	7
650849 253233 5059	359895
292686585403716391220461696776055389312221697892583164692850404792422822262492265211239638326127701 62	280257323805018481670878897695922987 58