

Problem E. Cryptography

Input file: `crypto.in`
Output file: `crypto.out`
Time limit: 2 seconds
Memory limit: 256 megabytes

Professor Klever is working on cracking the new cipher *Formally Incrackable Generaly Virtual Applied Masking* (FIGVAM). After investigating the cipher he reduced the problem of restoring the encryption key to the following problem: find two numbers x and y ($1 \leq x, y \leq n$) such that:

- $x \wedge y = y$;
- $(ax + by) \oplus (ay + bx)$ is maximal.

Here $p \wedge q$ means bitwise “and” of p and q , and $p \oplus q$ means bitwise “exclusive or” of p and q . You are given n , a and b . Help professor to find x and y .

Input

Input file contains n , a and b ($1 \leq n \leq 100\,000$, $0 \leq a, b \leq 2000$).

Output

Output x and y that satisfy the given conditions.

Example

<code>crypto.in</code>	<code>crypto.out</code>
20 2 3	15 10