A Math Contest P9 - Buy Some Get Some

Time limit: 1.0s **Memory limit:** 512M

Given integers a, n, p, find the smallest nonnegative integer x such that $a^x \equiv n \pmod{p}$.

Constraints

$1 < a, n, p < 2^{31}$

p is a prime number.

Input Specification

The only line contains three space-separated integers, a, n, and p.

Output Specification

Output the smallest possible nonnegative integer x; if no such x exists, output `DNE`.

Sample Input 1

```
7 4 5
```

Sample Output 1

```
2
```

Sample Input 2

```
10 7 11
```

Sample Output 2

```
DNE
```