

## B. Jzzhu and Sequences

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

Jzzhu has invented a kind of sequences, they meet the following property:

You are given  $X$  and  $Y$ , please calculate  $f_n$  modulo  $1000000007 (10^9 + 7)$ .

### Input

The first line contains two integers  $X$  and  $Y (|X|, |Y| \leq 10^9)$ . The second line contains a single integer  $n (1 \leq n \leq 2 \cdot 10^9)$ .

### Output

Output a single integer representing  $f_n$  modulo  $1000000007 (10^9 + 7)$ .

### Examples

input
2 3 3
output
1
input
0 -1 2
output
1000000006

### Note

In the first sample,  $f_2 = f_1 + f_3$ ,  $3 = 2 + f_3$ ,  $f_3 = 1$ .

In the second sample,  $f_2 = -1$ ;  $-1$  modulo  $(10^9 + 7)$  equals  $(10^9 + 6)$ .

### Codeforces Round #257 (Div. 2)

Finished

### → Virtual participation

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Start virtual contest

### → Problem tags

implementation math

No tag edit access

### → Contest materials

- Announcement 
- Tutorial 