

Contest Duration: 2020-06-07(Sun) 20:00 ~ 2020-06-07(Sun) 22:30 (local time) (150 minutes)

[Back to Home](#)

[Top](#)

[Tasks](#)

[Clarifications](#)

[Submit](#)

[Results](#)

[Standings](#)

[Virtual Standings](#)

[Custom Test](#)

[Editorial](#)

[Discuss](#)



C - Range Set

Editorial

 / 

Time Limit: 2 sec / Memory Limit: 1024 MB

Score : 800 points

Problem Statement

Snuke has a string x of length N . Initially, every character in x is '0'.

Snuke can do the following two operations any number of times in any order:

- Choose A consecutive characters in x and replace each of them with '0'.
- Choose B consecutive characters in x and replace each of them with '1'.

Find the number of different strings that x can be after Snuke finishes doing operations. This count can be enormous, so compute it modulo $(10^9 + 7)$.

Constraints

- $1 \leq N \leq 5000$
- $1 \leq A, B \leq N$
- All values in input are integers.

Input

Input is given from Standard Input in the following format:

N A B

Output

Print the number of different strings that x can be after Snuke finishes doing operations, modulo $(10^9 + 7)$.

Sample Input 1

Copy

4 2 3

Copy

Sample Output 1

Copy

11

Copy

For example, x can be '0011' or '1111' in the end, but cannot be '0110'.

Sample Input 2

Copy

10 7 2

Copy

Sample Output 2

Copy

533

Copy

Sample Input 3

Copy

1000 100 10

Copy

Sample Output 3

Copy

828178524


Copy

Language


C++ (GCC 9.2.1)

Source Code

1

 Open File

 Toggle Editor

 Auto Height

※ at most 512 KiB

※ Your source code will be saved as `Main.extension`.

Submit

