CTF: Catering the Food

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Problem Statement

After years of solving CTF challenges, you have finally landed your FIRST JOB! A Catering guy! that too at the wedding of billionaire Kakash Kambani!

Seeing how skilled you are at problem solving, you have been put in the icecream section. There are 3 available flavors, chocolate, vanilla, and strawberry. For each attendee at the wedding, you are supposed to give a tray with scoops of the flavors lined-up. Example - A tray of 4 scoops could be, `Choco-Van-Straw-Van`. But there are certain things you need to keep in mind.

1. You can't have 2 scoops of same flavor adjacent
2. As all attendees are narcissists, they dont want their ice-cream tray to be same as that of any other attendee. (`Choco-Van-Straw` and `Straw-Van-Choco` are considered different trays).

You are given instructions on how many scoops of each type of ice cream are to be placed on the tray. You have to tell how many attendees can you serve using this set of scoops(each tray should have the provided set of scoops of each flavors and no less).

As it can be large, output modulo $10^9 + 7$.

Input Format

A single line containing three space-separated integers:

$$C \quad V \quad S$$

indicating the number of scoops of Chocolate, Vanilla, and Strawberry, respectively.

Output Format

Output a single integer — the number of servable attendees/ distict trays, modulo $10^9 + 7$.

Constraints

- $0 \leq C, V, S \leq 10^5$
- $A + B + C \geq 1$

Time Limit

3 seconds

Memory Limit

256 MB

Sample Testcase

```
2 1 1
```

Sample Output

```
6
```

Explanation

valid arrangements are:

$$C\,V\,C\,S$$

$$C\,S\,C\,V$$

$$S\,C\,V\,C$$

$$V\,C\,S\,C$$

$$C\,V\,S\,C$$

$$C\,S\,V\,C$$

There are a total of 6 valid arrangements modulo $10^9 + 7$. observe that $S\,C\,V\,C$ and $C\,V\,C\,S$ are taken to be different