5/10/25, 11:00 AM E - Fruit Lineup

Contest Duration: 2025-05-10(Sat) 08:00 (http://www.timeanddate.com/worldclock/fixedtime.html? iso=20250510T2100&p1=248) - 2025-05-10(Sat) 09:40 (http://www.timeanddate.com/worldclock/fixedtime.html? iso=20250510T2240&p1=248) (local time) (100 minutes) Back to Home (/home)

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E - Fruit Lineup Editorial (/contests/abc405/tasks/abc405_e/editorial)

/ ##

Time Limit: 2 sec / Memory Limit: 1024 MB

Score: 475 points

Problem Statement

You have A apples, B oranges, C bananas, and D grapes.

How many ways are there to arrange these A+B+C+D fruits in a single row from left to right so that all of the following conditions hold? Find the count modulo 998244353.

- Every apple is placed to the left of every banana.
- Every apple is placed to the left of every grape.
- Every orange is placed to the left of every grape.

Here, the apples are indistinguishable; the same goes for the oranges, the bananas, and the grapes.

Constraints

- $1 < A < 10^6$
- $1 < B < 10^6$
- $1 < C < 10^6$
- $1 < D < 10^6$

• A, B, C, and D are integers.

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Input

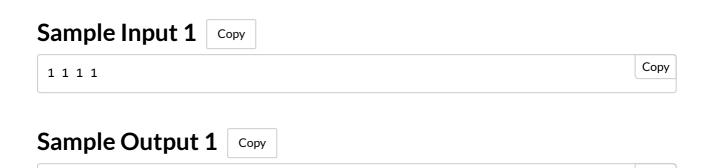
The input is given from Standard Input in the following format:

 $A \ B \ C \ D$

Output

5

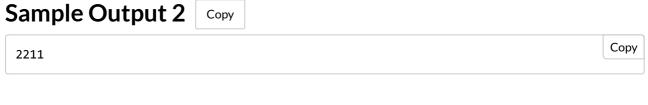
Output the number, modulo 998244353, of valid arrangements.



There are five valid arrangements:

- apple, orange, banana, grape
- apple, orange, grape, banana
- apple, banana, orange, grape
- orange, apple, banana, grape
- orange, apple, grape, banana

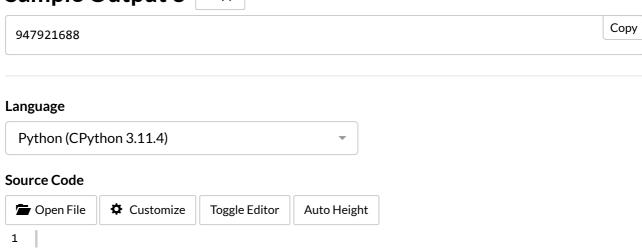




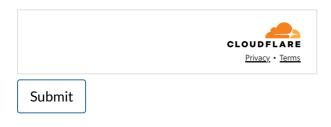
Sample Input 3 Copy 834150 21994 467364 994225 2025-05-16(854t) 11:00:20-04:00

Copy

Sample Output 3 Copy



^{*} Your source code will be saved as Main. extension.



'#telegram)

url=https%3A%2F%2Fatcoder.jp%2Fcontests%2Fabc405%2Ftasks%2Fabc405_e%3Flang%3Den&title=E%20-

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^{*} at most 512 KiB

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