Keep or Gamble

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	1024 megabytes

There are $U + T + P + C$ cards. Among them, U cards have a picture of a unicorn on the front, T cards have a tiger, P cards have a panda, and C cards have a cat. Initially, all cards are placed face down, and it is impossible to distinguish which picture is on each card.

You will play a game using these cards. The game consists of several turns. In each turn, you choose to perform either Operation A or Operation B:

- **Operation A:** Choose one of the face-down cards uniformly at random and flip it face up. If the drawn card shows a unicorn, tiger, or panda, you proceed to the next turn and the game continues. The flipped card remains face up. If the drawn card shows a cat, the game ends immediately. In this case, your score will be 0.
- **Operation B:** End the game immediately. Let u be the number of face-up cards showing a unicorn, and t be the number of face-up cards showing a tiger. Your score will be $2u + t$.

Find the expected score when following the optimal strategy to maximize your expected score, modulo 998244353.

Note on Expected Value Modulo 998244353

It can be proven that the expected value in this problem is always a rational number. Additionally, under the constraints of this problem, when the expected value is represented as an irreducible fraction $\frac{x}{y}$, it is guaranteed that y is not divisible by 998244353. Therefore, there uniquely exists an integer z $(0 \leq z < 998244353)$ such that $y \cdot z \equiv x \pmod{998244353}$. You should output this z.

Input

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

U T P C

- All input values are integers.
- $1 \leq U, T, P, C \leq 10^6$

Output

Print the answer on a single line.

Examples

standard input	standard output
1 1 1 1	166374060
2 7 1 8	300941313
20 26 2 14	631490021

Note

- In the first example, here is one possible progression of the game (note that this is not necessarily the optimal strategy):

- If you perform Operation B on the 1st turn, your score will be 0 and the game ends. Suppose you perform Operation A instead, and the flipped card shows a unicorn.
- In this state, if you perform Operation B on the 2nd turn, your score will be 2 and the game ends. Suppose you perform Operation A instead, and the flipped card shows a panda.
- In this state, if you perform Operation B on the 3rd turn, your score will be 2 and the game ends. Suppose you perform Operation A instead, and the flipped card shows a cat. Because a cat was drawn, your score becomes 0 and the game ends.

If you follow the optimal strategy, it can be shown that the expected score is $\frac{7}{6}$.