

Contest Duration: 2025-07-12(Sat) 22:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250712T2100&p1=248>) - 2025-07-12(Sat) 23:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250712T2240&p1=248>) (local time) (100 minutes)

iso=20250712T2100&p1=248) - 2025-07-12(Sat) 23:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250712T2240&p1=248>) (local time) (100 minutes)

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## E - Count $A \% B = C$

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Time Limit: 2 sec / Memory Limit: 1024 MiB

Score : 475 points

### Problem Statement

Find the number, modulo 998244353, of integer tuples  $(a, b, c)$  that satisfy the following conditions.

- $1 \leq a, b, c \leq N$
- $a, b, c$  are pairwise distinct.
- The remainder when  $a$  is divided by  $b$  is equal to  $c$ .

### Constraints

- $3 \leq N \leq 10^{12}$
- $N$  is an integer.

### Input

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

$N$

2026-01-02 (Fri)  
05:26:58 +11:00

# Output

Output the answer in one line.

## Sample Input 1

Copy

7

Copy

## Sample Output 1

Copy

12

Copy

There are 12 integer tuples  $(a, b, c)$  that satisfy the conditions:

- (3, 2, 1)
- (4, 3, 1)
- (5, 2, 1)
- (5, 3, 2)
- (5, 4, 1)
- (6, 4, 2)
- (6, 5, 1)
- (7, 2, 1)
- (7, 3, 1)
- (7, 4, 3)
- (7, 5, 2)
- (7, 6, 1)

## Sample Input 2

Copy

441

Copy

## Sample Output 2

Copy

94700

Copy

## Sample Input 3

Copy

411111111114

Copy

2026-01-02 (Fri)  
05:26:58 +11:00

# Sample Output 3

Copy

462474062

Copy

/#telegram)

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