

Problem F. Tea time in the grand garden

- Time Limit: 2 sec

Problem Statement

Appropriate temperature changes are essential for brewing delicious tea. Noli has been taught a recipe for delicious tea.

The recipe is represented by a sequence of non-negative integers $A = a_0, a_1, a_2, \dots, a_N, a_{N+1}$ of length $N + 2$. She must change the temperature accordingly.

Raising the temperature is hard work. The cost of a recipe A is defined by the following $f(A)$.

$$f(A) = \sum_{i=0}^N \max(0, a_{i+1} - a_i)$$

Noli has forgotten the recipe she was taught. All she remembers is that $a_0 = a_{N+1} = 0$ and that the cost was K .

How many possible recipes can be considered? Find the remainder of the number of possible recipes divided by 998244353.

Note that two recipes are different when the values of a_i are different for any $i (0 \leq i \leq N + 1)$.

Input

N K

The input satisfies the following constraints.

- All inputs consist of integers.
- $1 \leq N \leq 2 \times 10^5$
- $0 \leq K \leq 2 \times 10^5$

Output

Output the remainder of the number of possible recipes divided by 998244353. Add a new line at the end of the output.

| Sample Input 1 | Sample Output 1 |
|----------------|-----------------|
| 2 2 | 5 |
| Sample Input 2 | Sample Output 2 |
| 100 0 | 1 |
| Sample Input 3 | Sample Output 3 |
| 300 300 | 527212271 |
| Sample Input 4 | Sample Output 4 |
| 200000 200000 | 885086300 |

In Sample Input 1, There are five possible sequences A .

- $\{0, 2, 0, 0\}$
- $\{0, 0, 2, 0\}$
- $\{0, 1, 2, 0\}$
- $\{0, 2, 1, 0\}$
- $\{0, 2, 2, 0\}$