

Adjacent Decrements

Input file: *standard input*
Output file: *standard output*
Time limit: 7 seconds
Memory limit: 1024 mebibytes

Consider the following operation on an array a of length n . Choose an index i ($1 \leq i < n$), and then:

- if $a_i = a_{i+1}$, decrease both a_i and a_{i+1} by 1;
- otherwise, decrease the smaller of a_i and a_{i+1} by 1.

Every element of the array must be non-negative at all times, so an operation may only be applied when it does not make any element negative.

An array a is called *good* if it is possible to make all of its elements equal to 0 by applying this operation any number of times, possibly zero.

You are given n and k . Count the good arrays a of length n satisfying $0 \leq a_i \leq k$ for every i , modulo 998 244 353.

Input

The only line contains two integers n and k ($1 \leq n, k \leq 250\,000$).

Output

Print a single integer: the number of good arrays, taken modulo 998 244 353.

Examples

<i>standard input</i>	<i>standard output</i>
5 2	36
7 3	855