

Problem D

Domination Devil

Time Limit: 6 seconds

Today, the Domination Devil is going to teach us how to subjugate an island nation! You just need to remember this: *Instability Causes Pure Chaos*.

This country has n different islands, ranked from 1 to n in terms increasing order of *power*. Initially, there existed $n(n - 1)/2$ bidirectional bridges, with each bridge directly connecting two different islands together.

We need to cripple this nation's ability to protect itself, but we need to do so in such a way that their economy is *technically* still intact. We're going to choose a subset of the bridges, and *destroy* every bridge in this chosen subset. When you destroy a bridge, it is no longer usable.

After destroying the chosen bridges, both of these conditions must be met:

- *Destroy each island's support structure.* Each island should only be directly connected to **at most** k other islands with a greater power ranking than it. Two islands are directly connected if a usable bridge exists that connects them.
- *Leave them with just the bare minimum needed to function, hanging only by a thread.* It should still be possible to visit any island from any other island, just by traveling through the remaining usable bridges.

Given n and k , count the number of different subsets of bridges, such that destroying all the bridges in this subset will satisfy both of these conditions. This number can be quite large, so we only ask you to output the answer modulo 1699741697.

Input Format

Input consists of a single line with the space-separated integers n and k .

Constraints

- $1 \leq k < n \leq 2 \cdot 10^5$

Output Format

Output a single integer, the number of subsets that satisfy both of the stated conditions, modulo 1699741697.

Sample Input 1	Sample Output 1
4 1	6
Sample Input 2	Sample Output 2
4 2	30

Sample Input 3

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200000 1
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Sample Output 3

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1581480553
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Sample Input 4

```
200000 100000
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Sample Output 4

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1212906613
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Explanation

Let (u, v) denote the bridge connecting islands ranked u and v . If $n = 4$, then the set of all bridges is $\{(1, 2), (1, 3), (1, 4), (2, 3), (2, 4), (3, 4)\}$. With $k = 1$, the following bridges-to-destroy subsets will result in both given conditions being satisfied:

- Destroy $(1, 3)$, $(1, 4)$, and $(2, 3)$
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