Rocketman in Los Santos!

Carl "CJ" Johnson in Los Santos has a jetpack. He is using it to travel from (0, 0) to (N, 0) in a cartesian plane in which y=0 is the ground. He has two types of movements from point (x, y)

- He can move to (x+1, y+1) using his jetpack
- He can move to (x+1, max(0, y-1)) without using the jetpack

Also, the jetpack only can hold only K charges when fully charged. And a single charge is consumed for each movement he makes as mentioned above. He can recharge it full if he reaches x axis.

Find how many ways Carl can reach his destination.

Input Format

The first line contains two integers N and K.

Constraints

- $1 \leq N,K \leq 10^5$

Output Format

Output a single number representing the number of valid paths modulo $10^9 + 7$

Sample Input 0

```
3 1
```

Sample Output 0

```
3
```