Ambar and Jetpack

Input file:	`standard input`
Output file:	`standard output`
Time limit:	3 seconds
Memory limit:	256 megabytes

Ambar is caught in the cartesian plane and he's trying to get form $(0, 0)$ to $(N, 0)$. He has a jetpack that can help him reach his destination. At each step he can move from (x, y) to:

- $(x + 1, y + 1)$ if he uses the jetpack.
- $(x + 1, max(0, y - 1))$ if he doesn't use the jetpack.

The jetpack has K charges, so Ambar can't stay above the x-axis for more than $2 * K$ steps. On the other hand, the jetpack completely recharges if Ambar reaches the x-axis.
Count number of different paths Ambar can take in order to reach his destination. Since this number can be very large, output it modulo $10^9 + 7$.

Input

The only line of input contains two integers N & K ($1 \leq N, K \leq 10^5$).

Output

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

Examples

standard input	standard output
3 1	3
4 1	5
4 2	6
10 3	213