NAOI TST - Day 2
Problem 3 : π-day

You may know that March 14 is known as "π-day", since 3.14 (which is the third month and fourteenth day) is a good approximation of π.

Mathematicians celebrate this day by eating pie.

Suppose that you have n pieces of pie, and k people who are lined up for pieces of pie. All n pieces of pie will be given out. Each person will get at least one piece of pie, but mathematicians are a bit greedy at times. So, they always get at least as many pieces of pie as the person in front of them.

For example, if you have 8 pieces of pie and 4 people in line, you could give out pieces of pie in the following five ways (with the first person in line being the first number in the list):

$$[1, 1, 1, 5], \quad [1, 1, 2, 4], \quad [1, 1, 3, 3], \quad [1, 2, 2, 3], \quad [2, 2, 2, 2].$$

Notice that if $k = n$, there is only one way to give out the pieces of pie: every person gets exactly one piece. Also, if $k = 1$, there is only one way to give out the pieces of pie: that single person gets all the pieces.

Write a program that determines the number of ways that the pieces of pie can be given out.

Input Specification

- The first line of input is the integer number of pieces of pie, n ($1 \leq n \leq 250$).

- The second line of input is the integer k which is the number of people in line ($1 \leq k \leq n$).

- For at least 20% of the marks for this problem, $n \leq 9$. For at least 50% of the marks for this problem, $n \leq 70$. For at least 85% of the marks for this problem, $n \leq 120$.

Output Specification

The output will consist of a single integer which is the number of ways the pieces of pie can be distributed. Since this number may be large, output the result modulo $10^9 + 7$.

Sample Input 1

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8
4
```

Output for Sample Input 1

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5
```

Sample Input 2

```
6
2
```

Output for Sample Input 2

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3
```