

## E. Sereja and Intervals

time limit per test: 1 second  
memory limit per test: 256 megabytes  
input: standard input  
output: standard output

Sereja is interested in intervals of numbers, so he has prepared a problem about intervals for you. An interval of numbers is a pair of integers  $[l, r]$  ( $1 \leq l \leq r \leq m$ ). Interval  $[l_1, r_1]$  belongs to interval  $[l_2, r_2]$  if the following condition is met:  $l_2 \leq l_1 \leq r_1 \leq r_2$ .

Sereja wants to write out a sequence of  $n$  intervals  $[l_1, r_1], [l_2, r_2], \dots, [l_n, r_n]$  on a piece of paper. At that, no interval in the sequence can belong to some other interval of the sequence. Also, Sereja loves number  $x$  very much and he wants some (at least one) interval in the sequence to have  $l_i = x$ . Sereja wonders, how many distinct ways to write such intervals are there?

Help Sereja and find the required number of ways modulo  $1000000007$  ( $10^9 + 7$ ).

Two ways are considered distinct if there is such  $j$  ( $1 \leq j \leq n$ ), that the  $j$ -th intervals in two corresponding sequences are not equal.

### Input

The first line contains integers  $n, m, x$  ( $1 \leq n \cdot m \leq 100000$ ,  $1 \leq x \leq m$ ) — the number of segments in the sequence, the constraints on the numbers in segments and Sereja's favourite number.

### Output

In a single line print the answer modulo  $1000000007$  ( $10^9 + 7$ ).

### Examples

<b>input</b>
1 1 1
<b>output</b>
1

<b>input</b>
3 5 1
<b>output</b>
240

<b>input</b>
2 3 3
<b>output</b>
6

### Note

In third example next sequences will be correct:  $\{[1, 1], [3, 3]\}$ ,  $\{[1, 2], [3, 3]\}$ ,  $\{[2, 2], [3, 3]\}$ ,  $\{[3, 3], [1, 1]\}$ ,  $\{[3, 3], [2, 2]\}$ ,  $\{[3, 3], [1, 2]\}$ .