Problem J. Zoo

Time limit	1000 ms
Mem limit	262144 kB
OS	Windows

The mayor built a new Zoo. The Zoo looks like a **cycle** made up of n animal viewing locations, the locations are numbered from 1 to n where locations i and $i+1$ are adjacent and locations 1 and n are also adjacent. Before entering the Zoo, citizens pick two locations a, b such that $(a \neq b)$, and one of the two simple paths connecting them(clockwise or counter clockwise) such that the distance between a and b is at most k along that path.

The citizens then starts walking between the locations following 4 conditions:

1) The citizens shouldn't move outside the path between a and b.

2) All locations between a and b along the chosen path should be visited.

3) The walk should end on the starting location a.

4) The length of the walk is at most m.

How many possible walks can the citizens make? print that number module 10^9+7.

Input

The input is made up of one line containing 3 integers n, k, m, $(1 \leq k < n \leq 10^5, 1 \leq m \leq 2000)$.

Output

Print one integer x the answer to the problem module 10^9+7.

Sample 1

Input	Output
4 3 3	8

Sample 2

Input	Output
10 5 6	160