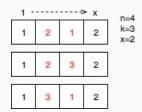
Your goal is to find the number of ways to construct an array such that consecutive positions contain different values.

Specifically, we want to construct an array with n elements such that each element between 1 and k, inclusive. We also want the first and last elements of the array to be ${f 1}$ and ${m x}$.

Given n, k and x, find the number of ways to construct such an array. Since the answer may be large, only find it modulo $10^9 + 7$.

For example, for n = 4, k = 3, x = 2, there are 3 ways, as shown here:



Complete the function countarray which takes input n, k and x. Return the number of ways to construct the array such that consecutive elements are distinct.

Constraints

- $\begin{array}{l} \bullet \ \ 3 \leq n \leq 10^5 \\ \bullet \ \ 2 \leq k \leq 10^5 \\ \bullet \ \ 1 \leq x \leq k \end{array}$

Subtasks

ullet For 20% of the maximum score, $n \leq 10^3$ and $k \leq 10^2$

Sample Input

$$n=4$$
, $k=3$, $x=2$

Sample Output

3

Explanation

Refer to the diagram in the challenge statement.