

## K-th Smallest in Lexicographical Order

Given two integers  $n$  and  $k$ , return *the  $k^{\text{th}}$  lexicographically smallest integer in the range  $[1, n]$ .*

### **Example 1:**

**Input:**  $n = 13, k = 2$

**Output:** 10

**Explanation:** The lexicographical order is [1, 10, 11, 12, 13, 2, 3, 4, 5, 6, 7, 8, 9], so the second smallest number is 10.

### **Example 2:**

**Input:**  $n = 1, k = 1$

**Output:** 1

### **Constraints:**

- $1 \leq k \leq n \leq 10^9$