Power Of Numbers

Easy Accuracy: 49.24% Submissions: 42514 Points: 2

Given a number and its reverse. Find that number raised to the power of its own reverse.

Note: As answers can be very large, print the result modulo 109 + 7.

Example 1:

Input:

N = 2

Output: 4

Explanation: The reverse of 2 is 2 and after raising power of 2 by 2 we get 4 which gives remainder as 4 by dividing 1000000007.

Example 2:

Input:

N = 12

Output: 864354781

Explanation: The reverse of 12 is 21 and 12^{21} , when divided by 1000000007

gives remainder as 864354781.

Your Task:

You don't need to read input or print anything. You just need to complete the **function pow()** that takes two parameters **N** and **R** denoting the input number and its reverse and returns **power** of (N to R)mod($10^9 + 7$).

Expected Time Complexity: O(LogN).
Expected Auxiliary Space: O(LogN).

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Constraints:

 $1 \le N \le 10^5$

