

Find the Factor

🔑 Points: 50 No test cases

Coding  **EASY** **Data Structures** **Sets** **Algorithms** **Priority Queue** **Problem Solving** **Core Skills**

Determine all positive integer values that evenly divide into a number, its factors. Return the p^{th} element of your list, sorted ascending. If there is no p^{th} element, return 0.

For example, given the number $n = 20$, its factors are $\{1, 2, 4, 5, 10, 20\}$. Using **1-based indexing** if $p = 3$, return 4. If $p > 6$, return 0.

Function Description

Complete the function `pthFactor` in the editor below. The function should return a long integer value of the p^{th} integer factor of n .

`pthFactor` has the following parameter(s):

- n : an integer
- p : an integer

Constraints

- $1 \leq n \leq 10^{15}$
- $1 \leq p \leq 10^9$

▶ Input Format for Custom Testing
▼ Sample Case 0
Sample Input 0
10 3
Sample Output 0
5
Explanation 0
Factoring $n = 10$ we get $\{1, 2, 5, 10\}$. We then return the $p = 3^{\text{rd}}$ factor as our answer.
▶ Sample Case 1
▶ Sample Case 2