Problem 483: Smallest Good Base

Problem Information

Difficulty: Hard
Acceptance Rate: 44.90%
Paid Only: No
Tags: Math, Binary Search

Problem Description

Given an integer `n` represented as a string, return _the smallest**good base** of_ `n`.

We call `k >= 2` a **good base** of `n`, if all digits of `n` base `k` are `1`'s.

Example 1:

Input: n = "13" **Output:** "3" **Explanation:** 13 base 3 is 111.

Example 2:

Input: n = "4681" **Output:** "8" **Explanation:** 4681 base 8 is 11111.

Example 3:

Input: n = "1000000000000000000" **Output:** "999999999999999999" **Explanation:** 1000000000000000000 base 999999999999999999 is 11.

Constraints:

* `n` is an integer in the range `[3, 1018]`. * `n` does not contain any leading zeros.

Code Snippets

C++:

```
class Solution {
public:
string smallestGoodBase(string n) {

}
};
```

Java:

```
class Solution {
public String smallestGoodBase(String n) {

}
}
```

Python3:

```
class Solution:
def smallestGoodBase(self, n: str) -> str:
```