483. Smallest Good Base

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 $[3, 10^{18}]$.
- n does not contain any leading zeros.