HUPROG NUMBERS

Problem

Submissions

Discussion Coming Soon

Türkçesi için tıklayınız

HUPROG was first organized by *Bilge Çimen* in 2016. Bilge has claimed the **2** and **6** as *HUPROG's digits* for the importance of this date.

The 2021 members of *HUPROG* team, Berat and Şura, have decided to set up and play a game about these numbers. As they like the *HUPROG digits*. The *M(x)* function returns the total number of *HUPROG digits* in a given number.

For example, the function M(123486628) returns 4 because there are two 2s and two 6s, so a total of 4 HUPROG numbers.

In this game, they start counting from a number, **A,** to the number, **A+T**. Then, they send those numbers *(e.g. A , A+1 , A+2 ...A+T-1 (A+T not included))* into the function *M(x)*, and they record the outputs. The purpose of the game is to find the number **B**. The number **B** is described as:

-The *M(x)* outputs of the numbers from **B** to **(B+T)** should be in the same order and the same value with *the outputs of function M(x)* of the numbers from **A** to **(A+T)**,

-and **B** should be the smallest number greater than **A**.

The first to find the number **B** wins. But Şura asks for help because she counts slowly. Can you help Şura?

Input Format

The first line contains two integers, *A* and *T*.

Output Format

Print the number *B*

Constraints

$1 \leq A, T \leq 10^9$

Sample Input 1

```
6 2
```

Sample Output 1

```
12
```

Explanation 1

Our inputs are 6 and 2, so the initial number is 6. For 6 and 7 M(6)=1, M(7)=0. The smallest B number that will output 1 and 0 for the numbers to be given to the M function is 12. Because M(12)=1, M(13)=0. No number less than 12 or greater than 6 satisfies this condition.

C++ Bright **Memory Limit (kB) :** 256000 **Time Limit (s) :** 1

```
1  //Brace your keyboard
2  //inzva community built algoleague for every algorithm enthusiast hungry for self-improvement and fri
3
4  #include <bits/stdc++.h>
```

```cpp

using namespace std;

int main() {
// write your code here

    return 0;
}

```

Upload File

Run Code

Submit