

Project Euler #104: Pandigital Fibonacci ends

This problem is a programming version of [Problem 104](#) from [projecteuler.net](#)

The Generalized Fibonacci sequence is defined by the recurrence relation:

$$G_n = G_{n-1} + G_{n-2}, \text{ where } G_1 = a \text{ and } G_2 = b.$$

It turns out that F_{541} , which contains **113** digits, is the first Fibonacci number for which the last nine digits are **1 – 9** pandigital (contain all the digits **1** to **9**, but not necessarily in order). And F_{2749} , which contains **575** digits, is the first Fibonacci number for which the first nine digits are **1 – 9** pandigital.

Given that G_n is the first Generalized Fibonacci number for which the first k digits AND the last k digits are **1 – k** pandigital, find n .

NOTE For this problem if you don't find a solution with in $n \leq 2 \times 10^6$, print `no solution`.

Input Format

First line of input contains a , second line contains b and the third line contains k .

Constraints

$$1 \leq a \leq b \leq 9$$
$$1 \leq k \leq 9$$

Output Format

Print the value n where G_n is the required generalized fibonacci term.

Sample Input

```
1
1
2
```

Sample Output

```
8
```