A. Vasya and Digital Root

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Vasya has recently found out what a digital root of a number is and he decided to share his knowledge with you.

Let's assume that $S(n)$ is the sum of digits of number n, for example, $S(4098) = 4 + 0 + 9 + 8 = 21$. Then the digital root of number n equals to:

1. $dr(n) = S(n)$, if $S(n) < 10$;
2. $dr(n) = dr(S(n))$, if $S(n) \geq 10$.

For example, $dr(4098) = dr(21) = 3$.

Vasya is afraid of large numbers, so the numbers he works with are at most 10^{1000}. For all such numbers, he has proved that $dr(n) = S(S(S(S(n))))$ $(n \leq 10^{1000})$.

Now Vasya wants to quickly find numbers with the given digital root. The problem is, he hasn't learned how to do that and he asked you to help him. You task is, given numbers k and d, find the number consisting of exactly k digits (the leading zeroes are not allowed), with digital root equal to d, or else state that such number does not exist.

Input

The first line contains two integers k and d $(1 \leq k \leq 1000;\ 0 \leq d \leq 9)$.

Output

In a single line print either any number that meets the requirements (without the leading zeroes) or "No solution" (without the quotes), if the corresponding number does not exist.

The chosen number must consist of exactly k digits. We assume that number 0 doesn't contain any leading zeroes.

Examples

input
4 4
output
5881

input
5 1
output
36172

input
1 0
output
0

Note

For the first test sample $dr(5881) = dr(22) = 4$.

For the second test sample $dr(36172) = dr(19) = dr(10) = 1$.

Codeforces Round #206 (Div. 2)
Finished

→ Virtual participation

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→ Problem tags

constructive algorithms implementation

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→ Contest materials

- Announcement
- Tutorial

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