

C. Beautiful Numbers

time limit per test: 2 seconds
 memory limit per test: 256 megabytes
 input: standard input
 output: standard output

Vitaly is a very weird man. He's got two favorite digits a and b . Vitaly calls a positive integer *good*, if the decimal representation of this integer only contains digits a and b . Vitaly calls a good number *excellent*, if the sum of its digits is a good number.

For example, let's say that Vitaly's favourite digits are 1 and 3, then number 12 isn't good and numbers 13 or 311 are. Also, number 111 is excellent and number 11 isn't.

Now Vitaly is wondering, how many excellent numbers of length exactly n are there. As this number can be rather large, he asks you to count the remainder after dividing it by $1000000007 (10^9 + 7)$.

A number's length is the number of digits in its decimal representation without leading zeroes.

Input

The first line contains three integers: a, b, n ($1 \leq a < b \leq 9, 1 \leq n \leq 10^6$).

Output

Print a single integer — the answer to the problem modulo $1000000007 (10^9 + 7)$.

Examples

input	Copy
1 3 3	
output	
1	

input	Copy
2 3 10	
output	
165	

→ Attention

Package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then value 800 ms will be displayed and used to determine the verdict.

Codeforces Round #181 (Div. 2)

Finished

→ Virtual participation

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→ Problem tags

[brute force](#) [combinatorics](#)

No tag edit access

→ Contest materials

- Announcement 
- Tutorial 