A top secret message containing uppercase letters from 'A' to 'Z' has been encoded as numbers using the following mapping:

'A' -> 1

'B' -> 2

...

'Z' -> 26

You are an FBI agent and you need to determine the total number of ways that the message can be decoded.

Since the answer could be very large, take it modulo 109 + 7.

Example

For message = "123", the output should be  
mapDecoding(message) = 3.

"123" can be decoded as "ABC" (1 2 3), "LC" (12 3) or "AW" (1 23), so the total number of ways is 3.

Input/Output

* **[execution time limit] 4 seconds (py3)**
* **[input] string message**

A string containing only digits.

*Guaranteed constraints:*  
0 ≤ message.length ≤ 105.

* **[output] integer**

The total number of ways to decode the given message.

**[Python 3] Syntax Tips**

# Prints help message to the console

# Returns a string

def helloWorld(name):

print("This prints to the console when you Run Tests")

return "Hello, " + name