

Total Decoding Messages

A message containing letters A-Z is being encoded to numbers using the following mapping:

'A' -> 1

'B' -> 2

...

'Z' -> 26

You are given a string **digits**. You have to determine the **total number of ways** that message can be decoded.

Examples:

Input: digits = "123"

Output: 3

Explanation: "123" can be decoded as "ABC"(1, 2, 3), "LC"(12, 3) and "AW"(1, 23).

Input: digits = "90"

Output: 0

Explanation: "90" cannot be decoded, as it's an invalid string and we cannot decode '0'.

Input: digits = "05"

Output: 0

Explanation: "05" cannot be mapped to "E" because of the leading zero ("5" is different from "05"), the string is not a valid encoding message.

Constraints:

$1 \leq \text{digits.size()} \leq 10^3$