

PART C

Minion ID Numbers

Description

There's some unrest in the minion ranks: minions with ID numbers like "1", "42", and other "good" numbers have been lording it over the poor minions who are stuck with more boring IDs. To quell the unrest, Commander Lambda has tasked you with reassigning everyone new, random IDs based on her Completely Foolproof Scheme.

She's concatenated the prime numbers in a single long string: "2357111317192329...". Now every minion must draw a number from a hat. That number is the starting index in that string of primes, and the minion's new ID number will be the next five digits in the string. So if a minion draws "3", their ID number will be "71113".

Help the Commander assign these IDs by writing a function `answer(n)` which takes in the starting index `n` of Lambda's string of all primes, and returns the next five digits in the string. Commander Lambda has a lot of minions, so the value of `n` will always be between 0 and 10000.

Hint: Commander Lambda will only draw from 0-10000, your value can exceed this but not to an extent it will slow down the number generation.

Test Cases

Inputs: (int) `n = 0` Output: (string) "23571"

Inputs: (int) `n = 1` Output: (string) "35711"

Inputs: (int) `n = 2` Output: (string) "57111"

Inputs: (int) `n = 3` Output: (string) "71113"

Inputs: (int) `n = 100` Output: (string) "19319"

Inputs: (int) `n = 139` Output: (string) "26927"

Solution

Provide your solution in ZIP/GIT. Execution time is limited.

Third-party libraries, input/output operations, spawning threads or processes and changes to the execution environment are not allowed.