AlgoExpert Quad Layout Swift 12px Sublime Monokai 00:00:00

Prompt Scratchpad Our Solution(s) Video Explanation Run Code

```
1\, // Copyright @ 2020 AlgoExpert, LLC. All rights reserved.
   class Program {
        // O(n^3 + m) time | O(n + m) space
        func numbersInPi(_ pi: String, _ favoriteNumbers: [String]) -> Int {
            var numbersDictionary = [String: Bool]()
            for number in favoriteNumbers {
 8
                 \verb|numbersDictionary[number]| = \verb|true||
10
11
12
            var cache = [Int: Int]()
13
14
            \textbf{let minimumNumberOfSpaces} = \texttt{getMinimumNumberOfSpaces}(\texttt{pi, numbersDictionary, \&cache, 0})
15
            if minimumNumberOfSpaces == Int(Int32.max) {
16
17
                return -1
18
            } else {
19
                 return minimumNumberOfSpaces
20
21
22
23
        func getMinimumNumberOfSpaces(_ pi: String, _ numbersDictionary: [String: Bool], _ cache: inout [Int: Int], _ index: Int) -> Int {
24
            if index == pi.count {
25
                 return -1
26
27
28
            if let minimumNumberOfSpaces = cache[index] {
29
                 return minimumNumberOfSpaces
30
31
32
            var minimumNumberOfSpaces = Int(Int32.max)
33
             for i in index ..< pi.count {</pre>
34
35
                 let startingIndex = pi.index(pi.startIndex, offsetBy: index)
36
37
                 let endingIndex = pi.index(pi.startIndex, offsetBy: i + 1)
38
39
                 let prefix = String(pi[startingIndex ..< endingIndex])</pre>
40
41
                 \quad \hbox{if numbersDictionary.keys.contains(prefix) } \{\\
42
                     \textbf{let minimumNumberOfSpacesInSuffix} = \texttt{getMinimumNumberOfSpaces}(\texttt{pi, numbersDictionary, \& cache, i + 1})
43
                     \verb|minimumNumberOfSpaces| = \verb|min(minimumNumberOfSpaces|, minimumNumberOfSpacesInSuffix + 1)|
44
45
46
47
48
            cache[index] = minimumNumberOfSpaces
49
50
            return minimumNumberOfSpaces
51
```

Solution 1

52 }

Solution 2