

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1	Solution 2	Solution 1	Solution 2	Solution 3
<pre>1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved. 2 3 import java.util.*; 4 5 class Program { 6 // O(n^3 + m) time O(n + m) space - where n is the number of digits in pi and m is the number of favorite numbers 7 // favorite numbers 8 public static int numbersInPi(String pi, String[] numbers) { 9 Set<String> numbersTable = new HashSet<String>(); 10 for (String number : numbers) { 11 numbersTable.add(number); 12 } 13 Map<Integer, Integer> cache = new HashMap<Integer, Integer>(); 14 for (int i = pi.length() - 1; i >= 0; i--) { 15 getMinSpaces(pi, numbersTable, cache, i); 16 } 17 return cache.get(0) == Integer.MAX_VALUE ? -1 : cache.get(0); 18 } 19 20 public static int getMinSpaces(21 String pi, Set<String> numbersTable, Map<Integer, Integer> cache 22) { 23 if (idx == pi.length()) return -1; 24 if (cache.containsKey(idx)) return cache.get(idx); 25 int minSpaces = Integer.MAX_VALUE; 26 for (int i = idx; i < pi.length(); i++) { 27 String prefix = pi.substring(idx, i + 1); 28 if (numbersTable.contains(prefix)) { 29 int minSpacesInSuffix = getMinSpaces(pi, numbersTable, cache, i + 1); 30 // Handle int overflow. 31 if (minSpacesInSuffix == Integer.MAX_VALUE) { 32 minSpaces = Math.min(minSpaces, minSpacesInSuffix); 33 } else { 34 minSpaces = Math.min(minSpaces, minSpacesInSuffix + 1); 35 } 36 } 37 } 38 cache.put(idx, minSpaces); 39 return minSpaces; 40 } 41}</pre>		<pre>1 class Program { 2 public static int numbersInPi(String pi, String[] numbers) { 3 // Write your code here. 4 return -1; 5 } 6 } 7</pre>		

