

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1

Solution 2

Solution 1

Solution 2

Solution 3

```
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         int minSpaces = getMinSpaces(pi, numbersTable, cache, 0);
15         return minSpaces == Integer.MAX_VALUE ? -1 : minSpaces;
16     }
17
18     public static int getMinSpaces(
19         String pi, Set<String> numbersTable, Map<Integer, Integer> cache
20     ) {
21         if (idx == pi.length()) return -1;
22         if (cache.containsKey(idx)) return cache.get(idx);
23         int minSpaces = Integer.MAX_VALUE;
24         for (int i = idx; i < pi.length(); i++) {
25             String prefix = pi.substring(idx, i + 1);
26             if (numbersTable.contains(prefix)) {
27                 int minSpacesInSuffix = getMinSpaces(pi, numbersTable, cache, i + 1);
28                 // Handle int overflow.
29                 if (minSpacesInSuffix == Integer.MAX_VALUE) {
30                     minSpaces = Math.min(minSpaces, minSpacesInSuffix);
31                 } else {
32                     minSpaces = Math.min(minSpaces, minSpacesInSuffix + 1);
33                 }
34             }
35         }
36         cache.put(idx, minSpaces);
37         return minSpaces;
38     }
39 }
```

```
1 class Program {
2     public static int numbersInPi(String pi, String[] numbers) {
3         // Write your code here.
4         return -1;
5     }
6 }
7
```

Our Tests

Custom Output

Submit Code

```
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
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33                 }
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35         }
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37         return minSpaces;
38     }
39 }
```

```
1 class Program {
2     public static int numbersInPi(String pi, String[] numbers) {
3         // Write your code here.
4         return -1;
5     }
6 }
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```

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Run or submit code when you're ready.