

AlgoExpert

Quad Layout

Python

14px

Solutions

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1

```

1  # Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3  # O(n^2 + m) time | O(n + m) space
4  ▼ def patternMatcher(pattern, string):
5  ▼     if len(pattern) > len(string):
6         return []
7
8     newPattern = getNewPattern(pattern)
9     didSwitch = newPattern[0] != pattern[0]
10    counts = {"x": 0, "y": 0}
11    firstYPos = getCountsAndFirstYPos(newPattern, counts)
12  ▼    if counts["y"] != 0:
13        for lenOfX in range(1, len(string)):
14            lenOfY = (len(string) - lenOfX) // 2
15            if lenOfY <= 0 or lenOfY % 2 != 0:
16                continue
17            lenOfY = int(lenOfY)
18            yIdx = firstYPos * lenOfX
19            x = string[:lenOfX]
20            y = string[yIdx : yIdx + lenOfY]
21            potentialMatch = map(lambda char: "x" if char == "x" else "y", x + y)
22            if string == "".join(potentialMatch):
23                return [x, y] if not didSwitch else [y, x]
24        else:
25            lenOfX = len(string) // counts["x"]
26            if lenOfX % 2 != 0:
27                continue
28            lenOfX = int(lenOfX)
29            x = string[:lenOfX]
30            potentialMatch = map(lambda char: "x" if char == "x" else "y", x)
31            if string == "".join(potentialMatch):
32                return [x, ""] if not didSwitch else ["", x]
33
34  ▼ def getNewPattern(pattern):
35    patternLetters = list(pattern)
36  ▼    if pattern[0] == "x":
37        return patternLetters
38  ▼    else:
39        return list(map(lambda char: "x" if char == "y" else "y", patternLetters))
40
41

```

Solution 1

Solution 2

Solution 3

```

1  # def patternMatcher(pattern, string):
2  #     # Write your code here.
3
4  #     pass
5  import math
6
7  ▼ def patternMatcher(pattern, string):
8    patternLen = len(pattern)
9    stringLen = len(string)
10   patternChanged = False
11   result = []
12  ▼   if (pattern[0] != "x"):
13       pattern = correctPattern(pattern)
14
15       x_count = pattern.count("x")
16       y_count = pattern.count("y")
17       x_len_min = 1
18       x_len_max = math.ceil((stringLen - y_count) / x_count)
19
20  ▼   for i in range(x_len_min, x_len_max + 1):
21       x_len = i
22       y_len = int((stringLen - x_count * x_len) / y_count)
23
24       x = string[:x_len]

```

```
42 ▼ def getCountsAndFirstYPos(pattern, counts):
43     firstYPos = None
44 ▼     for i, char in enumerate(pattern):
45         counts[char] += 1
46 ▼         if char == "y" and firstYPos is None:
47             firstYPos = i
48     return firstYPos
49
```

Tests

Custom Output

Submit Code

✗ Test Case 5 failed.

✓ Test Case 6 passed!

✗ Test Case 7 failed.

✗ Test Case 8 failed.

✓ Test Case 9 passed!

✓ Test Case 10 passed!

✗ Test Case 11 failed.

✗ Test Case 12 failed.