

Solution 1Solution 2

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 using System;
4
5 public class Program {
6     // O(n^3) time | O(n^2) space
7     public static int PalindromePartitioningMinCuts(string str) {
8         bool[,] palindromes = new bool[str.Length, str.Length];
9         for (int i = 0; i < str.Length; i++) {
10             for (int j = i; j < str.Length; j++) {
11                 palindromes[i, j] = IsPalindrome(str.Substring(i, j + 1 - i));
12             }
13         }
14         int[] cuts = new int[str.Length];
15         Array.Fill(cuts, Int32.MaxValue);
16         for (int i = 0; i < str.Length; i++) {
17             if (palindromes[0, i]) {
18                 cuts[i] = 0;
19             } else {
20                 cuts[i] = cuts[i - 1] + 1;
21                 for (int j = 1; j < i; j++) {
22                     if (palindromes[j, i] && cuts[j - 1] + 1 < cuts[i]) {
23                         cuts[i] = cuts[j - 1] + 1;
24                     }
25                 }
26             }
27         }
28         return cuts[str.Length - 1];
29     }
30
31     public static bool IsPalindrome(string str) {
32         int leftIdx = 0;
33         int rightIdx = str.Length - 1;
34         while (leftIdx < rightIdx) {
35             if (str[leftIdx] != str[rightIdx]) {
36                 return false;
37             }
38             leftIdx++;
39             rightIdx--;
40         }
41         return true;
42     }
43 }
44
```

