```
1  /*
2   * CSE212
3   * (c) BYU-Idaho
4   * 03-Teach - Problem 2
5   *
6   * It is a violation of BYU-Idaho Honor Code to post or share this code with others or
7   * to post it online.  Storage into a personal and private repository (e.g. private
8   * GitHub repository, unshared Google Drive folder) is acceptable.
9   *
10  */
11
12  namespace teach_03;
13
14  public static class ComplicatedStack {
15      public static bool DoSomethingComplicated(string line) {
16          var stack = new Stack<char>();
17          foreach (var item in line) {
18              if (item is '(' or '[' or '{') {
19                  stack.Push(item);
20              }
21              else if (item is ')') {
22                  if (stack.Count == 0 || stack.Pop() != '(')
23                      return false;
24              }
25              else if (item is ']') {
26                  if (stack.Count == 0 || stack.Pop() != '[')
27                      return false;
28              }
29              else if (item is '}') {
30                  if (stack.Count == 0 || stack.Pop() != '{')
31                      return false;
32              }
33          }
34
35          return stack.Count == 0;
36      }
37  }
```