Given a string para, consisting of symbols '(', '[', '{', ')', ']', '}' and ' ', find out if it is a*correct bracket sequence* (*CBS* in short) with occasional whitespace (' ') characters. A *CBS* can be defined as follows:

* empty string ("") is a *CBS*;
* if *S* is a *CBS*, then (*S*), [*S*], {*S*} are *CBSs*;
* if *S1*, *S2* are *CBS*, then *S1S2* is a *CBS*.

**Example:**

* MatchingParentheses("( )(( )){([( )])}") = true
* MatchingParentheses(")(") = false
* **[input] string para**
  + A string of symbols '(', '[', '{', ')', ']', '}'and ' '.
* **[output] boolean**
  + true if the given string is*CBS*, false otherwise.

<https://codefights.com/challenge/vjxo2WFyex6a85BrH>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace ConsoleApplication1

{

class Program

{

static bool MatchingParentheses(string para)

{

List<char> abiertos = new List<char>(new char[] { '(', '[', '{' });

List<char> cerrados = new List<char>(new char[] { ')', ']', '}' });

Stack<char> pila = new Stack<char>();

bool balanceado = true;

for (int i = 0; i < para.Length && balanceado; i++)

{

char actual = para[i];

if (actual != ' ')

{

if (abiertos.Contains(actual))

{

pila.Push(actual);

}

else

{

balanceado = (pila.Count > 0)

&& cerrados.IndexOf(actual) == abiertos.IndexOf(pila.Pop());

}

}

}

return balanceado && (pila.Count == 0);

}

static void Main(string[] args)

{

string s = "( )(( )){([( )])}";

Console.WriteLine( MatchingParentheses(s));

Console.ReadLine();

}

}

}