You're given an integer array A. Count the number of ways to split the array into three contiguous (non-empty) parts so that the sum of elements in each part is the same.

* **[time limit] 3000ms (cs)**
* **[input] array.integer a**
* **[output] integer**

<https://codefights.com/challenge/Ny9W5CXPBRfZrB436/main>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace ConsoleApplication1

{

class Program

{

static int numberOfWays(int[] a)

{

int answer = 0;

for (int i = 0; i < a.Length - 2; i++)

{

for (int j = i + 1; j < a.Length - 1; j++)

{

List<int> p1 = new List<int>();

List<int> p2 = new List<int> ();

List<int> p3 = new List<int>();

for (int k = 0; k <= i; k++)

{

p1.Add(a[k]);

}

for (int k = i + 1; k <= j; k++)

{

p2.Add(a[k]);

}

for (int k = j + 1; k < a.Length; k++)

{

p3.Add(a[k]);

}

if (p1.Sum() == p2.Sum() && p2.Sum() == p3.Sum())

{

answer++;

}

//foreach (int elem in p1)

//{

// Console.Write(elem + " ");

//}

//Console.Write(" - ");

//foreach (int elem in p2)

//{

// Console.Write(elem + " ");

//}

//Console.Write(" - ");

//foreach (int elem in p3)

//{

// Console.Write(elem + " ");

//}

//Console.WriteLine();

}

}

return answer;

}

static void Main(string[] args)

{

//int[] arr = { 1, 2, 3, 4, 5, 6, 7, 8, 9 };

int[] arr = { 1, 2, 3, 0, 3 };

Console.WriteLine( numberOfWays(arr) );

Console.ReadLine();

}

}

}