[Dividing Coins]

Description

You have a set of coins to split with your brother while he is sleeping. So, you have decided to stick to the following strategy to avoid suspicions: you take the minimum number of coins, whose sum of values is strictly more than the sum of values of the remaining coins. On this basis, determine what minimum number of coins you need to take to divide them in the described manner.

Input: an array of coins values; 1,2,3 (you have 3 coins first coin of value 1 second of value 2 …)

Output: minimum number of coins to take

Complexity

complexity of your algorithm should be **less than O(N^2)**

Function: **Implement it!**

```
static public int RequiredFuntion(int[] arr)
```

`[PROBLEM_CLASS].cs includes this method.`

Example

Input: 3,3

Output: 2, Explanation: (you and your brother have sums equal to 6,0 correspondingly). If you take 1 coin, you get sums 3,3. If you take 0 coins, you get sums 0,6. Those variants do not satisfy you as your sum should be strictly more that you brother's sum.

Input: 2,1,2

Output: 2

Input: 10,9

Output: 1

Input: 2,2,2,2,2,2,2,2,2,2

Output: 6

C# Help

Getting the size of 1D array

```
int size = array1D.GetLength(0);
```

Getting the size of 2D array

```
int size1 = array2D.GetLength(0);

int size2 = array2D.GetLength(1);
```

Creating 1D array

```
int [] array1D = new int [size]
```

Creating 2D array

```
int [,] array2D = new int [size1, size2]
```

Sorting single array

Sort the given array "items" in ascending order

```
Array.Sort(items);
```

Sorting parallel arrays

Sort the first array "master" and re-order the 2nd array "slave" according to this sorting

```
Array.Sort(master, slave);
```