KATA: Largest difference in Array

The goal of this kata is to make use of Array manipulation techniques in C#. You are given an array containing integers. You are to find the maximum difference between two elements. The smaller element must appear before larger element in the array (can’t simply use .Min() and .Max()).

Example:

Input:

numbers = { 2, 3, 1, 7, 9, 5, 11, 3, 5 }

Output:

The maximum difference between two array elements is:

10

Explanation:

10 = 11(6) – 1(2)

**Optional extra:**

See how many pairs of numbers added together, in the order they appear in (meaning you can’t add numbers that are “behind” the one you are looking at in the array), give that same maximum.

Example (with indexes included):

3(1) + 7(3) = 10

1(2) + 9(4) = 10

7(3) + 3(7) = 10

5(5) + 5(8) = 10

Therefore, there are 4 pairs that add up to that maximum.