1. **What is the expected running time of the following C# code? Explain why. Assume the array's size is n.**

**long Compute(int[] arr)**

**{**

**long count = 0;**

**for (int i=0; i<arr.Length; i++)**

**{**

**int start = 0, end = arr.Length-1;**

**while (start < end)**

**if (arr[start] < arr[end])**

**{ start++; count++; }**

**else**

**end--;**

**}**

**return count;**

**}**

Complexity of this exercise is “2n” (I think) , because there is one for loop and one while loop inside.

1. **What is the expected running time of the following C# code? Explain why.**

**long CalcCount(int[,] matrix)**

**{**

**long count = 0;**

**for (int row=0; row<matrix.GetLength(0); row++)**

**if (matrix[row, 0] % 2 == 0)**

**for (int col=0; col<matrix.GetLength(1); col++)**

**if (matrix[row,col] > 0)**

**count++;**

**return count;**

**}**

Complexity of this exercise is “n \* m”, where “n” is for the first loop and “m” is for the nested one.