1. TASK: **\* What is the expected running time of the following C# code? Explain why.**
2. **long CalcSum(int[,] matrix, int row)**
3. **{**
4. **long sum = 0;**
5. **for (int col = 0; col < matrix.GetLength(0); col++)**
6. **sum += matrix[row, col];**
7. **if (row + 1 < matrix.GetLength(1))**
8. **sum += CalcSum(matrix, row + 1);**
9. **return sum;**
10. **}**
11. **Console.WriteLine(CalcSum(matrix, 0));**

**IMPORTANT: THE CODE IS INCORRECT. In the loop we should have col < matrix.GetLength(1) and in the if statement row + 1< matrix.GetLength(0).**

ANSWER: If we correct the code then we have a running time of O(m\*n) 🡪 The loop iterates from 0 to matrix.GetLength(1) and then we call the same function recursively – matrix.GetLength(0) times.