**Lab 6 – Starting searching and reviewing merge sort**

**Part I Starting Searching**

1. Write an algorithm, in pseudo code, which searches for the max. and min. of N numbers in an **unordered** array A. //Bring this to class on Friday
2. What is this algorithm’s Big O? Why?
3. Implement the algorithm in 1. in C.
4. Write an algorithm, in pseudo code, which searches for a particular number in an **ordered** array A. //Bring this to class on Friday
5. What is this algorithm’s Big O? Why?
6. Implement the algorithm in 4. in C.

**Part II Looking at the Merge part of the Merge Sort**

1. Read the presentation in the Week 7 folder on Webcourses. This outlines the **Merge** part of the Merge Sort algorithm. Illustrate/draw how the **Merge** part of the Merge Sort Algorithm works on the following two lists – [1,2,5,7] and [3, 4, 6, 8].