

CS151L Fall 2013

Week 11: Computer Science Concepts

Search Algorithms – search through a list of items for the desired item

Linear Search - Check every one of its elements, one at a time and in sequence, until the desired one is found

Binary Search – Used with sorted lists, Divide the list in half and check to see which half of the list the item is in, then divide again. Repeat until item is found

Recursive Problem - The problem can be described as a reduced or smaller form of the same problem

Recursive Implementation - calling a function or procedure in the body of that same function or procedure. (must be prevented from consuming excessive computing resources)

Computational Complexity – a measure of the difficulty of a problem by describing the resources required to solve it using a computer

Time Complexity – a measure of how much time it will take to run the program by account for the number of operations in the program.

Space Complexity – a measure of how much memory the program uses in its execution.