CSE 111

Fall 2010

November 12

Announcements

- Lab 6 started in lab this week
- Next week: No new assignment – time to finish up any remaining issues with Labs 4, 5, 6.
  - All three are due at the same time, but starting them all the day before they are due is NOT recommended
  - They are due November 28th
    - This is the Sunday at the end of Thanksgiving break – don't count on anyone being available for help Wednesday through Sunday.

Announcements

- Exam 3 – November 15th (in lecture)
- Monday, November 22nd – lectures will not meet. Instead, I will be holding office hours all day to assist with any last-minute issues with the Scratch assignments. If you are coming for help with Scratch, you must bring your files with you. I don't have access to your UB filespace from my office.

Sections from Book

- 5.1
- 5.3
- 5.4
- 5.5
- 6.1

Topics

- There will be questions on the terms and definitions from the sections of the chapter.
- You will also be responsible for the linear search, binary search, and insertion sort algorithms.

Searching Algorithms

- Given the following list of elements, give the order the elements would be considered if using the xxx algorithm to find element Y.

Sample Lists

Binary search 148

13	446
34	136
136	178
148	148
178	
258	
446	
456	
578	
674	
853	
872	
9462	

Binary search 539

13	446
34	674
136	456
148	578
178	
258	
446	
456	
578	
674	
853	
872	
9462	

Sample Lists

Linear search for 178

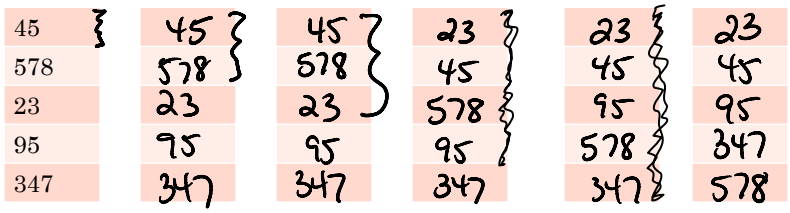
13	13
34	34
136	136
148	148
178	178
258	
446	
456	
578	
674	
853	
872	
9462	

Linear search for 429

13	13
34	34
136	136
148	148
178	178
258	258
446	446
456	456
578	578
674	674
853	853
872	872
9462	9462

Example for Insertion Sort

- Given the following list of elements, show the state of the list after each iteration of insertion sort.



Scratch Questions

- Probably the best way to ensure that you understand working with Scratch is to download it to your own computer and work through Lab 4 & as much of Lab 5 as you can.
- Even if you have done them already, going through them again when there is not a person there to ask questions will help you to make sure you understand the concepts.

- http://scratch.mit.edu

Scratch Questions

- Given a block – can you describe what it does? (one block)
- Given a description of an action/activity – can you pick out a block that would do that? (one block)
- Can you do the above for a short sequence of actions or activities (5-6 blocks).
- Given an if-statement (or if-else statement), could you evaluate the condition and determine what code will be executed?
- If looking at a script for a sprite, could you determine when it would execute?

Scratch Questions

- Could you determine which part of a script would be repeated?
- Can you tell how many times a piece of a script would be repeated?
- Can you identify a variable in a script?
- Can you show where in a script a variable will change its value?
- What does a broadcast do?