

Answers to student questions from In-class quiz 3. Spring, 2012

How to implement a comparator for different variable types.

I presume you mean one comparator that works for more than one type. I can only think of one way to do that. If the two types A and B both extend or implement type C then you may be able to make a comparator for C that will apply to both A and B.

Hash Stuff.

This is too vague to know how to answer it, except to say that we will talk about efficient hash table implementation later. For now, you should just know how to USE HashSet and HashMap.

The Overview went a little too quickly, and I wasn't able to follow too easily.

It was indeed a little bit more rushed than I intended it to be. The PascalChristmasTree intro took longer than I thought it would. You should definitely read Weiss chapter 6. If there are things you still don't get after that, come and talk with me.

What are PriorityQueues used for?

Any situation where the order of processing things depends on a priority rather than the order of insertion. A prime example is the "Ready queue" of processes on a computer that are waiting for their turn to use the CPU. Many different criteria can be used to determine the priority. A famous scheme is SJF (shortest job first). Weiss Section 12.1.3 presents a nice data-compression algorithm that uses a PriorityQueue as one of its main data structure.