2/7/2008

- Do you have any questions about the assignment?
- What is the purpose of generics?
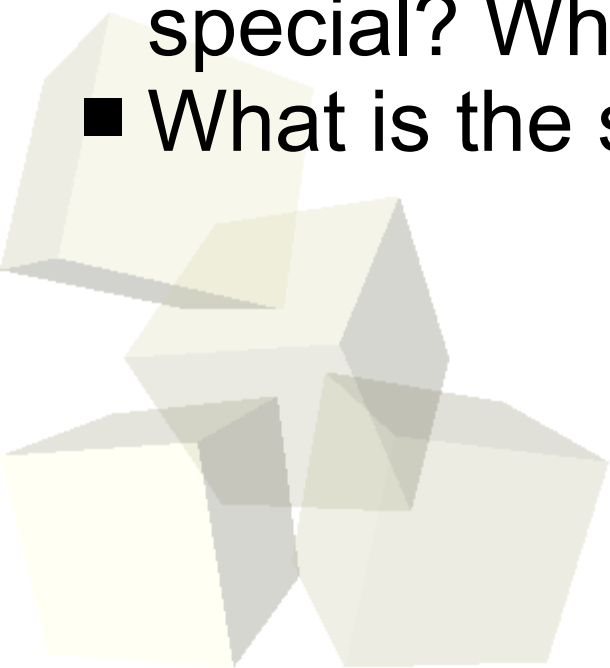- What is the syntax of generics?
- What are enums?
- What is the syntax of Java enums?
- What are inner classes? What makes them special? What types of inner classes are there?
- What is the syntax of inner classes?

- How did you represent a string in C? How do we represent a string in Java?
- Let's go look at the API for String to see what the Java developers have provided us with.
- Strings are immutable so it is very inefficient to build big strings from a lot of little pieces. If you need to do that, use StringBuffer.
- It is the only class with an overloaded operator, + for string concatenation.
- Functions that looks they mutate the String return a new String instead.
- To get a single character, use charAt.
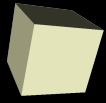
- To give us a chance to play with strings some let's go ahead and write that code that parses text formulas into a polymorphic tree for fast evaluation.
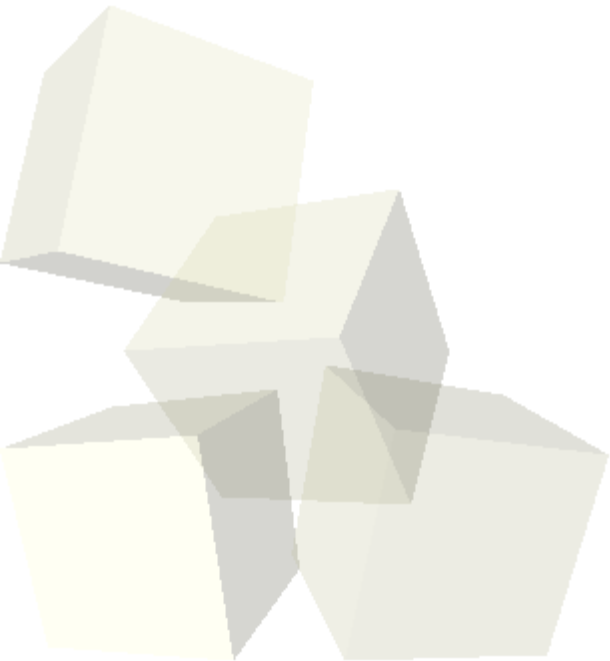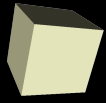
- You'll notice that some of the methods in String say that they take regular expressions (regex). This is a topic that we won't directly cover in this class, but it is a very powerful technique for you to learn.
- The java.util.regex package contains the two main classes that are used for regular expressions. The Pattern class has a lot of description about them at the top.
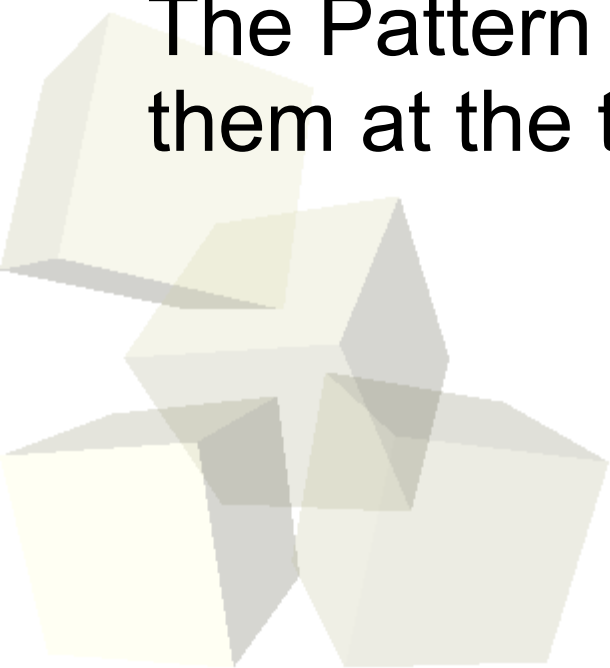
- Array syntax in Java is just like it was in C as far as using the arrays. There are significant differences though.
- Array types are made by putting [] after a regular type.
- Array types are object types so your variables are references and should be instantiated with new.
- Arrays have bounds checking and know their length.
- You can't make arrays of generics.

- With whatever time is left I want to go play with the ray tracer some now. We can make an array of Geomerty objects.
- Note that arrays of objects store an array of references. This allows for inclusion polymorphism with arrays.
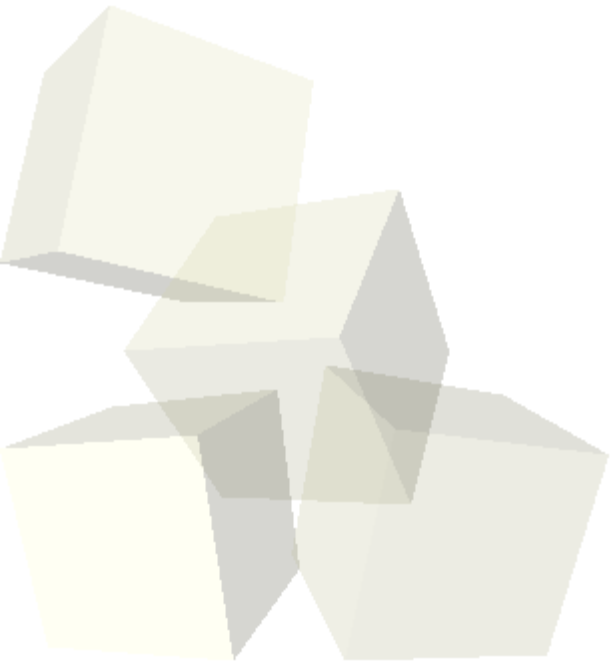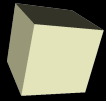
- Write the following method:
  - String replaceAll(String s,char f,char t)
- This method should return a new string where all instances of f in s have been replaced with t.
- Remember to submit your code for assignment #1 today.
- The first quiz is next class.
- Interclass Problem – Write a program where a user types in a line of text and you print out each word in the line and the number of characters in it.