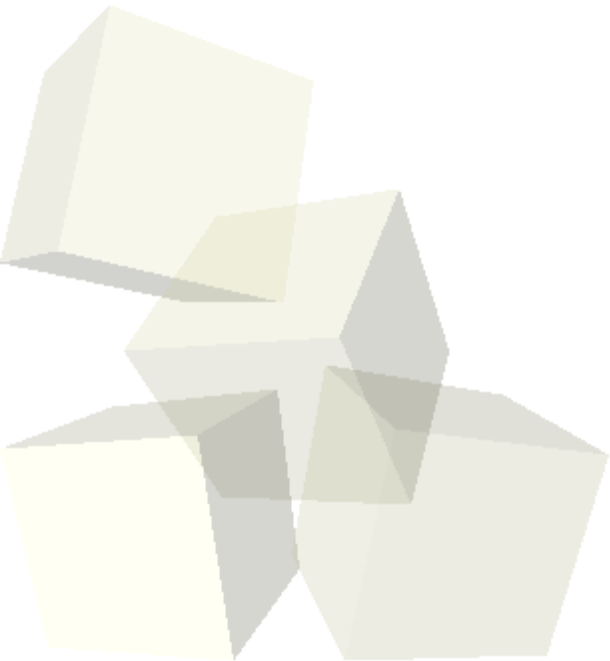




Libraries and Instance Methods

10/29/2007





Opening Discussion

- Do you have any questions about the quiz?
- Let's look at some solutions to the interclass problem.





Testing and Unit Tests

- In order to be certain that a program actually works, we have to test it.
- A unit test is a test written to check the functionality of one particular class. We typically create them by making another class that uses the first one and does things we can verify the answers to.
- The assert directive is a way of checking whether the answer to something came out the way we expected it.
- There are also tools like JUnit that can help with building and running unit tests.



Test Driven Development

- Many developers have switched to a style of coding called test driven development.
- A test drive developer will actually write tests for the functionality of methods before writing the code in the methods.
- Test driven development has some nice advantages for making developers feel secure that they can alter their code at later dates.





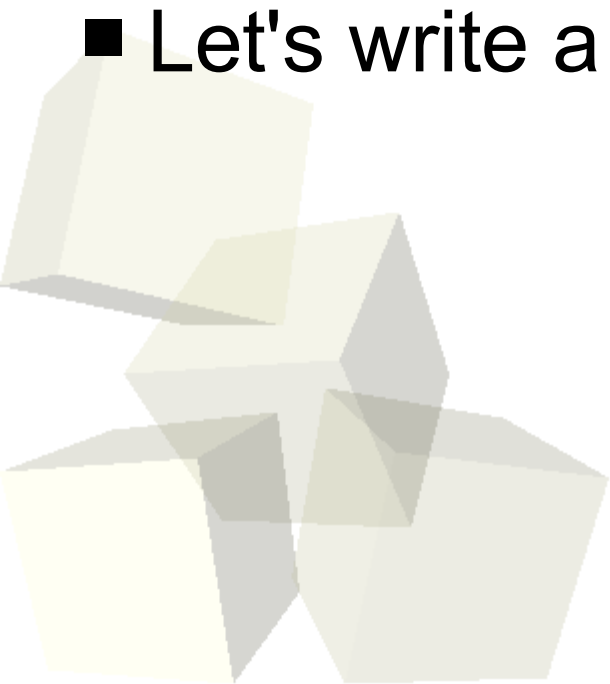
Instance Methods

- Last time we only wrote static methods. These are methods that are associated with the class and are called from the class as a whole.
- Most of the methods that you write won't be state. These methods have to be called on an instance of the class. You need to have an individual object to call them on.
- Let's make a class called circle where we can explore these ideas.





- There is a special type of method in Java called a constructor.
- A constructor has the same name as the class it is in and has no return type.
- We don't call constructors directly, they are called when we use `new` to instantiate an object of that class.
- Let's write a little class and put a constructor in it.





- Imagine a class called Student. What properties and methods might you put in that class?
- Interclass Problem – Do problem 9.10.

