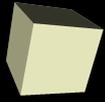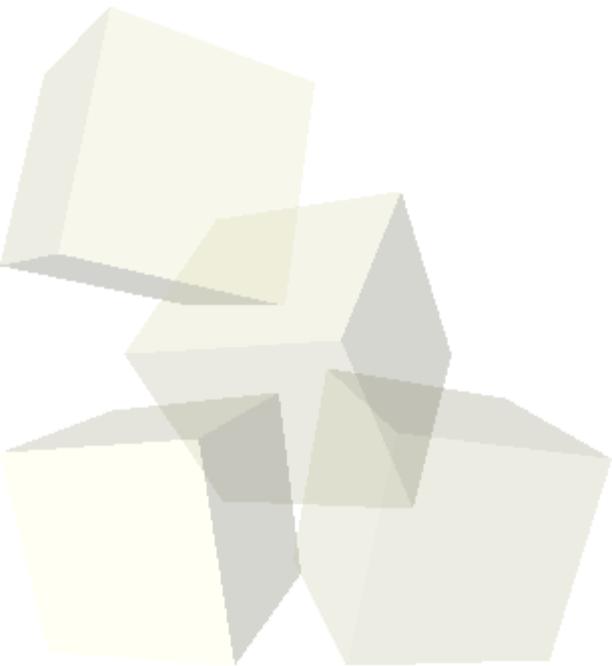2/5/2008

- Do you have any questions about the quiz?
- Let's look at some solutions to the interclass problem.
- Minute Essays
  - Difference between variables and parameters.
  - How do you make one object turn into another object?
  - Project #1 requirements.

- I want the mummy to take steps to the thing is it supposed to attack and have it take the proper number regardless of the initial conditions.
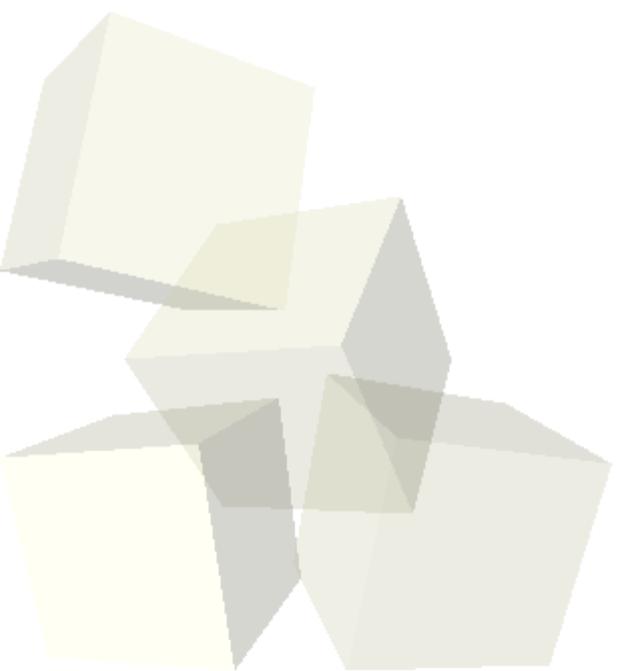
- This is something that you probably saw a need for a long time ago. You were able to make an animation for taking a step, but you weren't easily able to make it happen multiple times.
- Worse yet, if you did make it happen multiple times, the number of times was fixed. You could call the function five times, but it would always happen five time.
- With conditional execution we gained the ability to have some options only happen under certain conditions, but that is still less than ideal if we potentially need many iterations.

- The for loop is a basic loop that is typically used for counting types of purposes. The basic form in Alice will only allow this though we'll see the full form later in the semester and it gives more power.
- For now, we use a for loop to do a certain block of code a specified number of times. When we create a for loop we tell it how many times it should happen and then code we place in it happens that many times.
- The number of times can be a variable, parameter, property, function call, or some mathematical expression.
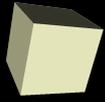
- When you work with for loops you sometimes want to have access to the counter variable.
- Alice will give you the option of specifying the loop variable as an expression.
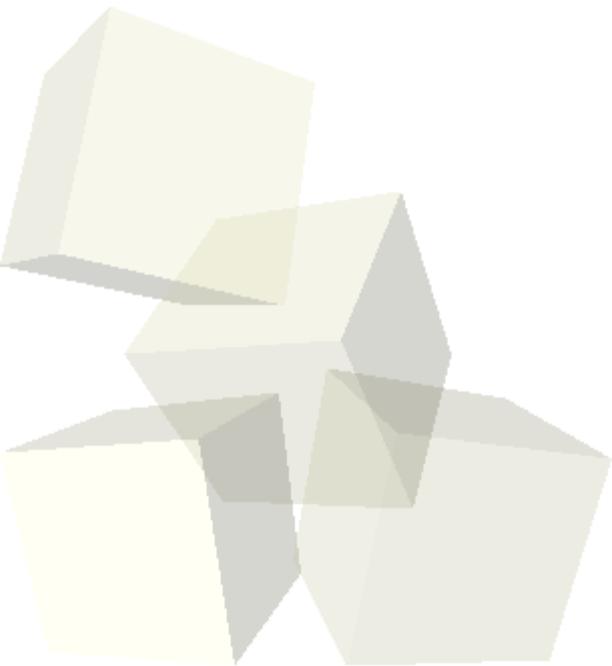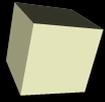
- You have the ability to put blocks of code in other blocks. We saw this first with doInOrder and doTogether.
- You can also nest if statements and loops. Nested loops cause the inner activity to be done a multiplicative number of times.
- Alice allows you to make expressions from multiple index variables, but I'm not particularly happy with how it works.
- Calling methods with loops in them from inside of loops is effectively having nested loops.

- Can you think of an example where the for loop might not do what you want? What is it?
- Project ideas are due in class next Monday.
- Interclass Problem – Add a method to an object called Zeno. This method should have two parameter: an object to move toward and a number of iterations. Have the primary object move repeatedly half way to the parameter object the number of times specified.