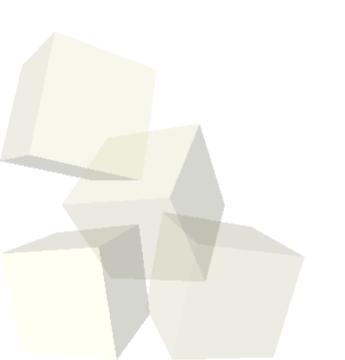
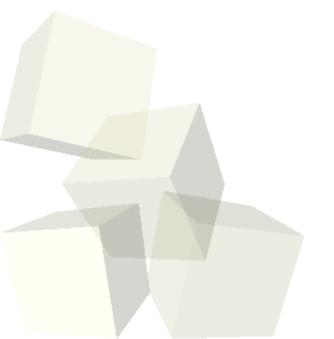
# while Loops





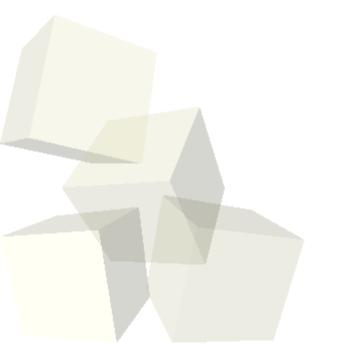
# Opening Discussion

- Let's look at some solutions to the interclass problem.
- When is the for loop not ideal? When you can't easily calculate beforehand how many iterations to do.
- Do you have any questions about the project?



#### **Problem**

- We got our attack method so that the mummy will walk all the way to the victim using a for loop.
- What happens if our victim tries to evade the mummy at the same time? This could happen either with a doTogether block or an event where the user alters the location of the victim.

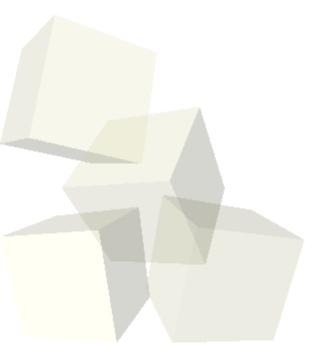


### The while Loop

- Last time we saw how we can use a for loop to repeat code a certain number of times. As long as we could calculate the number of times in advance it worked great.
- Many times you want something to happen until a certain condition is achieved. For this you use a while loop.
- The while loop takes one argument, a boolean expression. The body is executed repeatedly as long as the statement is true.
- If the body of the loop can't change the condition, you get an infinite loop.
- The while loop is a pre-check loop.

## **Serious Coding**

- Now that we have a lot more elements to play with, I want us to write something more significant in Alice.
- Maybe if we cheat a bit and use one of the events we haven't learned about yet we can make a game of tag.



## **Minute Essay**

- Do you have a good idea of what you want to do for the project?
- Remember that the project description is due on Monday.
- Interclass Problem Do one of the following problems: 4.9, 4.10, or 4.11.

