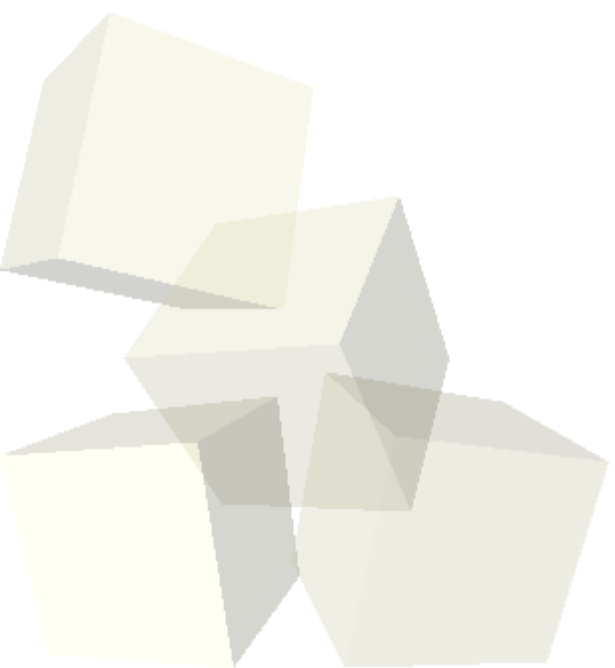




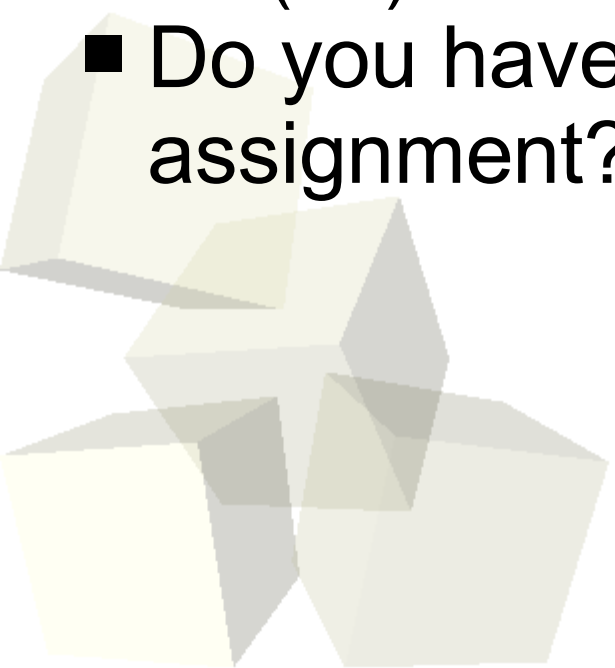
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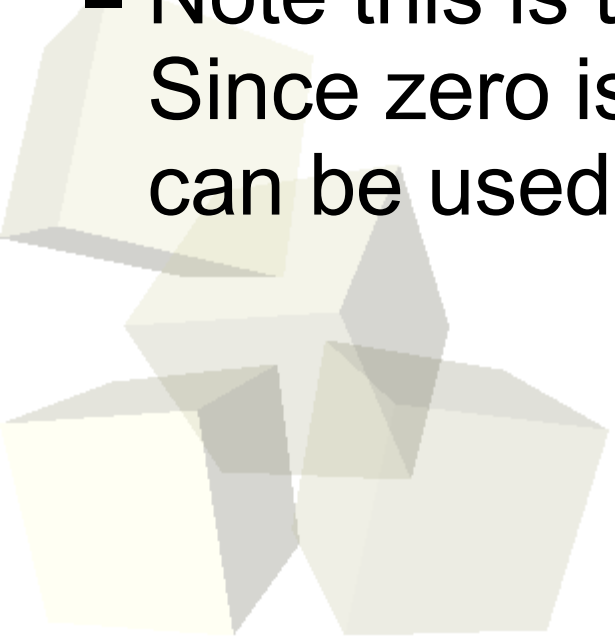
Opening Discussion

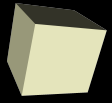
- Let's look at solutions to the interclass problem.
- Denim Group presentation in HAS 340 at 5pm.
- Answers to the minute essay
 - ◆ $\&a - \text{int}^*$
 - ◆ $*b - \text{int}$
 - ◆ $*(b+2) - \text{int}$
 - ◆ $\&>(*b) - \text{int}^*$
 - ◆ $*(\&a) - \text{int}$
- Do you have any questions about the assignment?





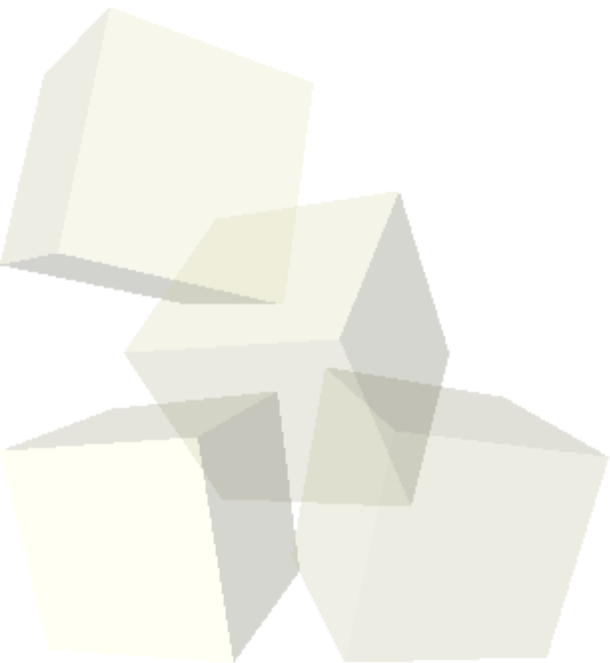
- I'm deviating from the order of the book for this because I want us to be able to use strings. We'll go into more detail later.
- A string in C is a null terminated array of characters. That is to say it is an array of characters with the value zero stored after the last character.
- Note this is the value zero, not the character zero. Since zero is not a valid character in ASCII this can be used to end the string.





Initializing String Variables

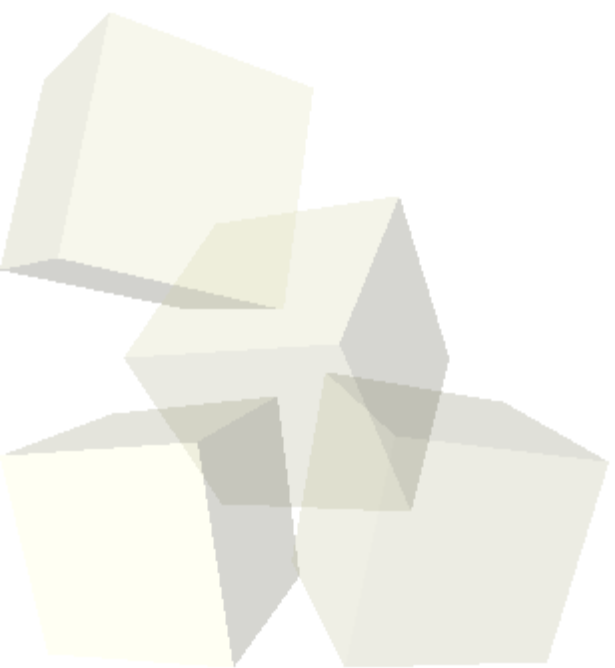
- When you declare an array of chars you can set it equal to a string literal.
- You don't have to provide the length of the array unless you want extra space in the string.





Strings as Pointers

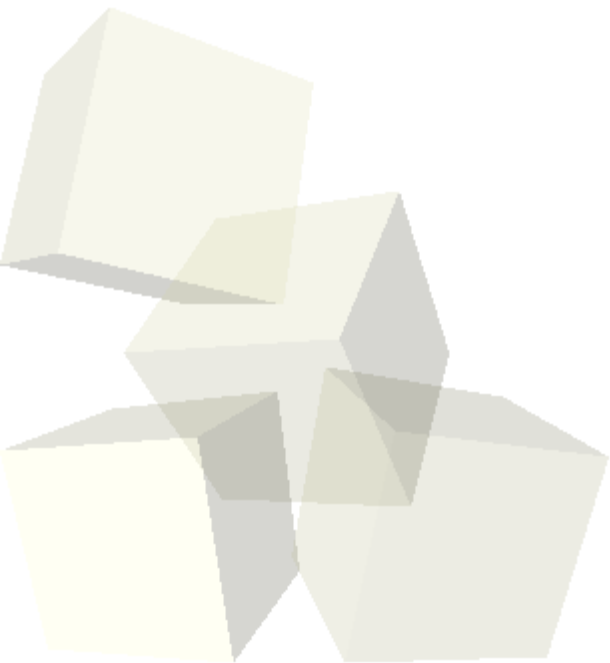
- Many functions will treat strings as a `char*` or a `const char*` instead of a `char[]`. As we'll see later, this makes sense because arrays and pointers are extremely similar in many ways.
- When you write a function that deals with a string you can have it take either a `char*` or a `char[]`. I will probably use `char*` out of habit.





Writing some String Functions

- Let's write one or two functions that deal with strings.



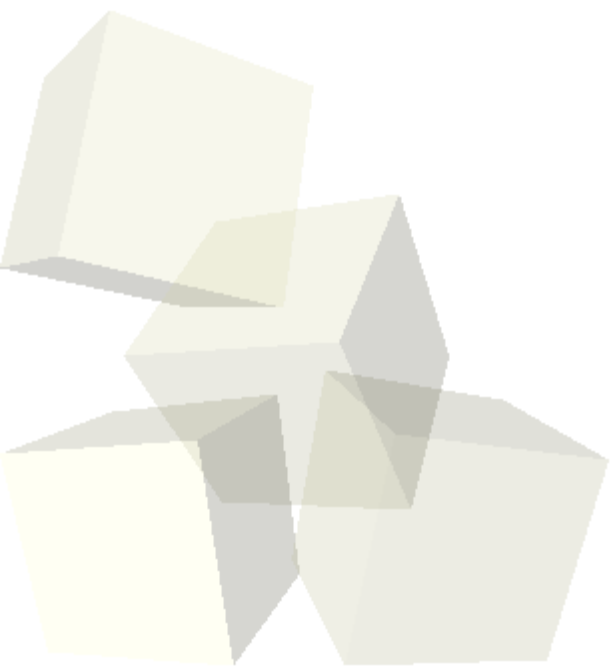


- Obviously, many people need these functions. As you would expect, they exist in a library for exactly this reason.
- You can include `string.h` and look in the man pages to see all the different things that the C libraries allow you to do with strings.
- While it is good to know how to manipulate strings, you will probably use the libraries for most basic manipulations.





- In printf and scanf you use %s to signify a string.
- For scanf it only reads one word and you don't need to put the & in front of the variable because an array is like a pointer.
- The fgets function can be used to read in a full line.





- Write a function that takes a string as input and returns the number of lower case letters in the string.
- Denim Group presentation in HAS 340 at 5pm.
- Interclass Problem – Play with strings some and write a program that has the user input a string, then does some manipulations and prints out an altered string. You can pick the details.

