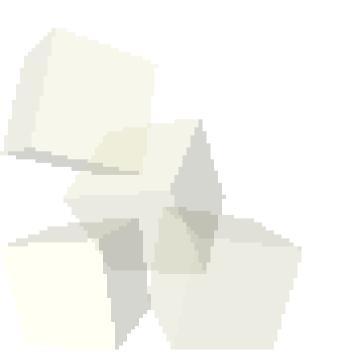


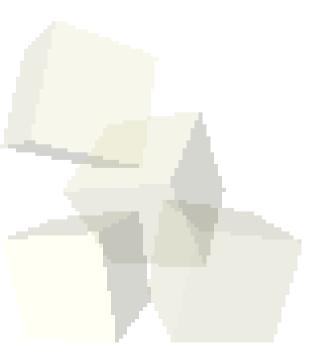
# Stats, 3-D Arrays, and Data Types

2-1-2010



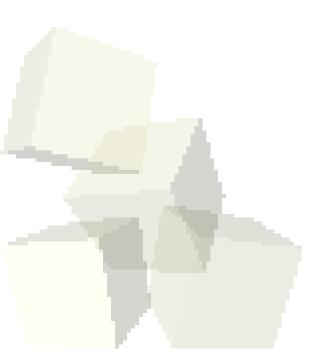
## **Opening Discussion**

- What did we talk about last class?
- Do you have any questions about the reading?
- The meshgrid method is how we could get a mesh in Matlab without resorting to a loop.



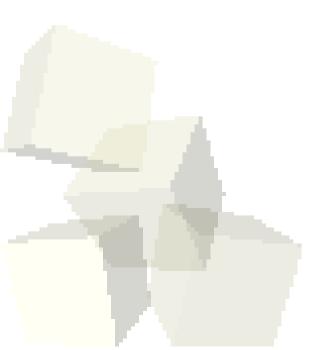
## Basic Data Analysis

- Matlab also provides filtering functions that combine elements in arrays in various ways that you can specify.
- The filter function does linear combinations of elements in an array.



## Multidimensional Arrays

- Arrays in Matlab can have more than 2 dimensions to them.
- We aren't going to deal with these much in this course and your book doesn't really deal with them outside of this one chapter either.



### Numeric Data Types

- By default, everything in Matlab is a double. However, you can force things to be other types.
- Integer types can be signed or unsigned with 8, 16, 32, or 64 bits. When you construct an array with one of the construction methods, you can pass in a string giving the integer type. The class function lets you see the type of something that you have.
- You can also do a casting like operation to make something a particular type.
- If you want, there are also single precision floating point numbers.



# **Closing Comments**

■ See you on Wednesday.

