9-6-2006
Opening Discussion

- What did we talk about last class?
- Do you have any questions about the reading?
The sort function sorts arrays.
The find function searches for things in them.
The size and length functions tell you how big they are.
Make an array with two rows. One row is integers from -5 to 5, the other is the square of those values.

Now use a logical operation to make a new array that contains only the columns where the square is greater than 5.

Now do the same type of thing but only get squares greater than 10 or less than 5.
Write a few lines of code that will do Serpinski's triangle and put each now point in a single Nx2 array. Put 5000 points into it.

You can plot that array with the following:
- `plot(data(:,1),data(:,2),'.')`

Now write a loop that will do a Mandelbrot check for a single point. Have it loop until $z_n$ has a magnitude greater than 2 or you get through 100 iterations.
Now make an m-file and put the code you wrote for the Mandelbrot into the m-file as a function that takes a point and returns how many iterations it went.

Let's close out the class trying to write code that will plot up a full Mandelbrot set for us.
Assignment #2 is due on Friday.