More IO

(Mostly I)

Reading Files

- If you know how long the file is, write a for to read it in. Illustrations:
- Python

```
myvars=np.array((100,nlines))
for n in nlines:
   myvars[:,n]=map(float, \
         f.readline().rstrip('\n').split(','))
```

Reading Files

- You don’t have to read every line in the same loop.
- Python

```
f.readline()
for line in f:
    varlist.append(line.rstrip('\n').split())
```

Files of Unknown Length (Continued)

- The file descriptor itself can be an iterator

```
x=[]
y=[]
f=open("myfile")
for line in f:
   vars=map(float,line.rstrip('\n').split())
    x.append(vars[0])
    y.append(vars[1])
```

Reading from the Command Line

- Python

```
import sys
n=int(sys.argv[1])
```

It's still read in as a string and you must convert it to the correct type.

Raising Exceptions in Python

- Not just for IO but this is a good place to introduce it.

```
while True:
   try:
      n=int(raw_input("Enter an integer:")
      break
   except ValueError:
      print "You did not enter an integer\
       Try again."
```