[1.] At left is a loop, written in C, that might be used to do N molecular dynamics time steps for a mass $m$ on a spring $k$. In the space to the right, compose the analog in python. How does python know when the loop ends?

```
for (i=0;i<N;i=i+1)
{
    t=t+dt;
    x=x+v*dt;
    v=v-k*x*dt/m;
    printf("%lf %lf ",t,x);
}
```

[2.] What does the following line of python code do? Explain completely.

```
time=array('f',[0.5,-1.0,6.0])
```

[3.] Suppose you want to add a new value, 9.0, to an existing array whose name is 'peeves'. How would you do it?

[4.] In your code from Tuesday, you made a plot with:

```
plt.figure(1)
plt.subplot(211)
plt.plot(time, xsave)
plt.subplot(212)
plt.plot(time, vsave)
plt.show()
```

What were the '211' and '212' doing in the 'subplot' commands?