

Notebook to support Exercise 3.4.9, modeling a cooling potato.

The data, in time/temperature pairs:

```
times = [0, 2, 4, 8, 10, 13, 17, 20, 24, 30];  
temps = [204, 193, 184, 169, 162, 156, 149, 143, 138, 130];
```

A plot:

```
plt1 = plot(times,temps,'-r');
```

The temperature might be modeled by the function

```
syms u(t,k);  
u(t,k) = 72 + 132*exp(-k*t)
```

A least-squares function can be formed as

```
syms SS(k)  
SS(k) = sum((u(times,k)-temps).^2);
```

Now adjust k to minimize this.