

A helpful script for Exercise 3.4.2.

Here is the data for Exercise 3.4.2:

```
tvals = [0 300 1200 3000];  
yvals = [1.0 0.78 0.37 0.08];
```

However, we will work with the log of the concentration, so

```
ylogs = log(yvals)
```

A quick plot of (time, distance) pairs:

```
scatter(tvals,ylogs)
```

To fit a function $u(k,t) = k*t$ to this data by adjusting "k", define

```
syms u(k,t);  
u(k,t) = k*t;  
syms SS(k)  
SS(k) = sum((u(tvals,k)-ylogs).^2);
```

Then minimize the resulting expression SS as a function of k.