A helpful notebook for Exercise 3.4.1.

Here is the data for Exercise 3.4.1:

In[1]:=
```
data = {{0.1, 0.11}, {0.6, 0.5}, {1.1, 0.6}, {1.4, 0.5}}
```

A plot

In[3]:=
```
ListPlot[data]
```

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

In[4]:=
```
u[t_, a_] = a * t
```

and form sum of squares

In[10]:=
```
SS = Sum[(u[data[[i, 1]], a] - data[[i, 2]])^2, {i, 1, 4}]
```

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

For parts b, c, and d, do the same but with appropriate modifications to u.