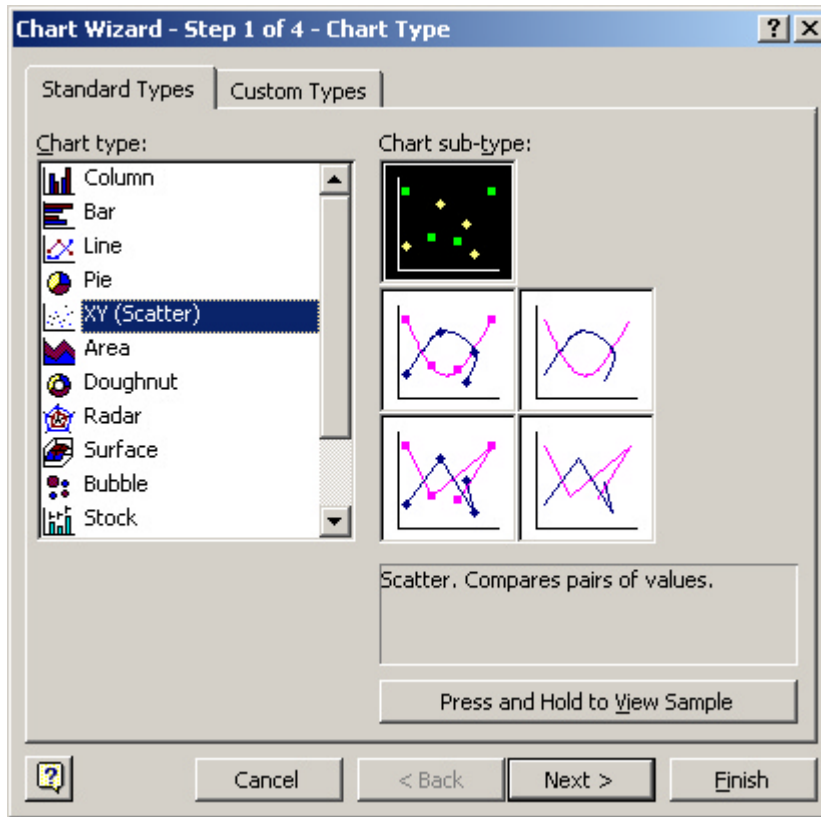
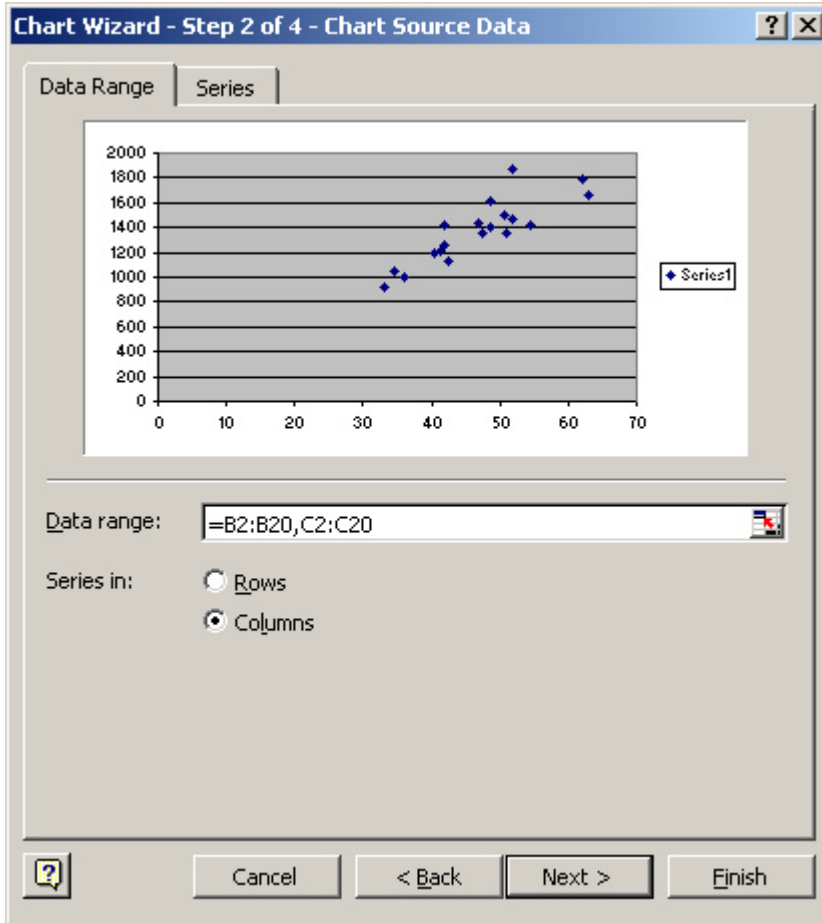


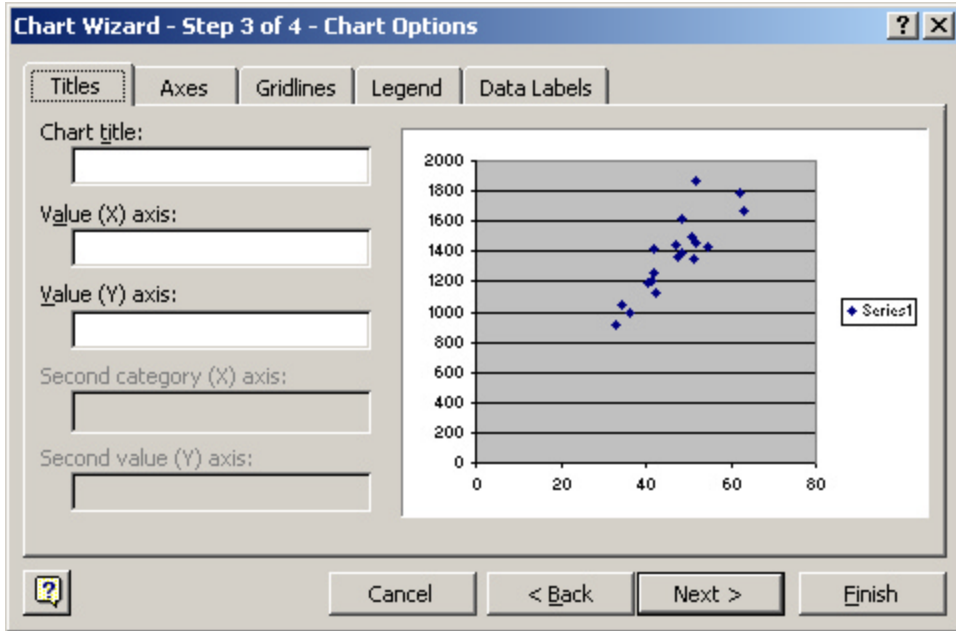
- Next we will make a scatterplot of Rate (on the y axis) versus Mass (on the x axis). Click on the “Chart wizard” (the icon on the tool bar that looks like a histogram). This should bring up a dialog box that looks like the following:



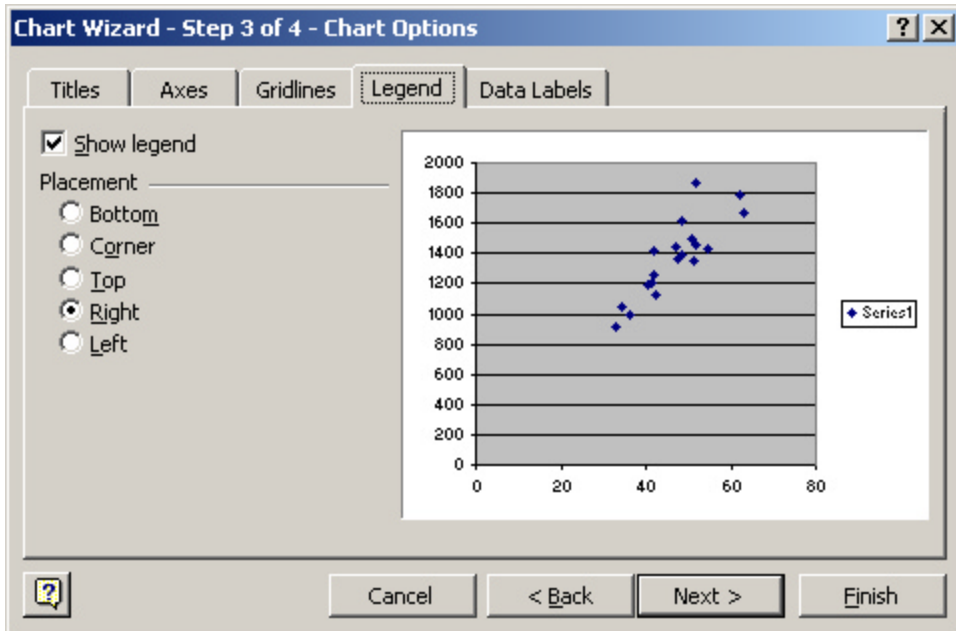
- Make sure that you click on Chart type: “XY (Scatter)”. Also click on the scatterplot chart sub-type that does not have the points joined in any manner. Then click on *next*. This should bring up the following dialog box.



4. Next where it says *Data range* type in “=B2:B20,C2:C20”. Note that the first range (B2:B20) specifies the data to fall on the X axis and the second range (C2:C20) specifies the data to fall on the Y axis (the two ranges are separated by a comma). Make sure that *Series in* is “Columns”. Then click next.
5. Now the Chart wizard gives you the opportunity to put names on the plot. In *Chart title* type “Rate versus Mass for 2.11”. For the X axis label you should type “Mass” and for the Y axis label you should type “Rate”.



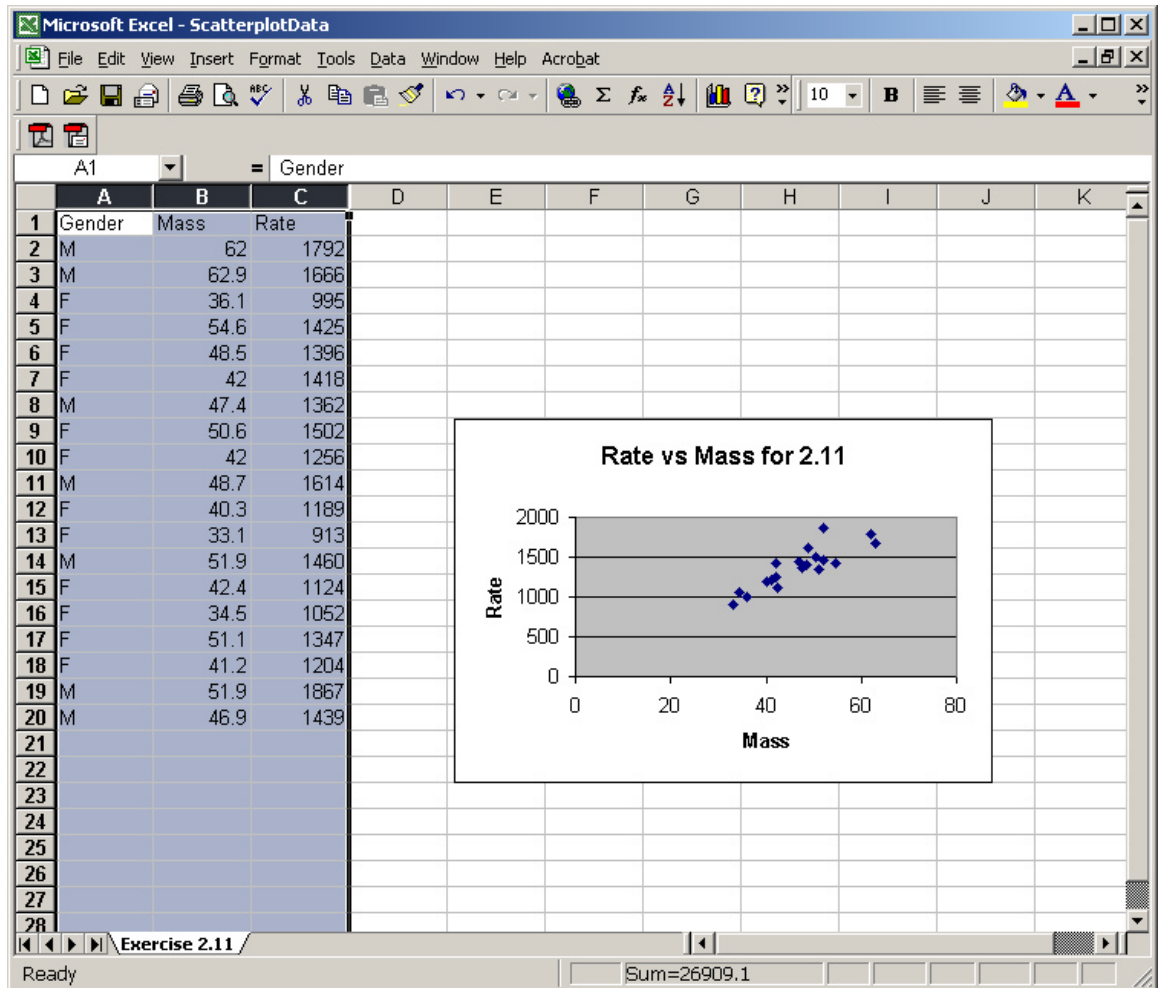
6. This plot does not require a legend since only one symbol type is being used. Click on the legend tab. Make sure that the Show legend check box is not checked. Then click *Next*



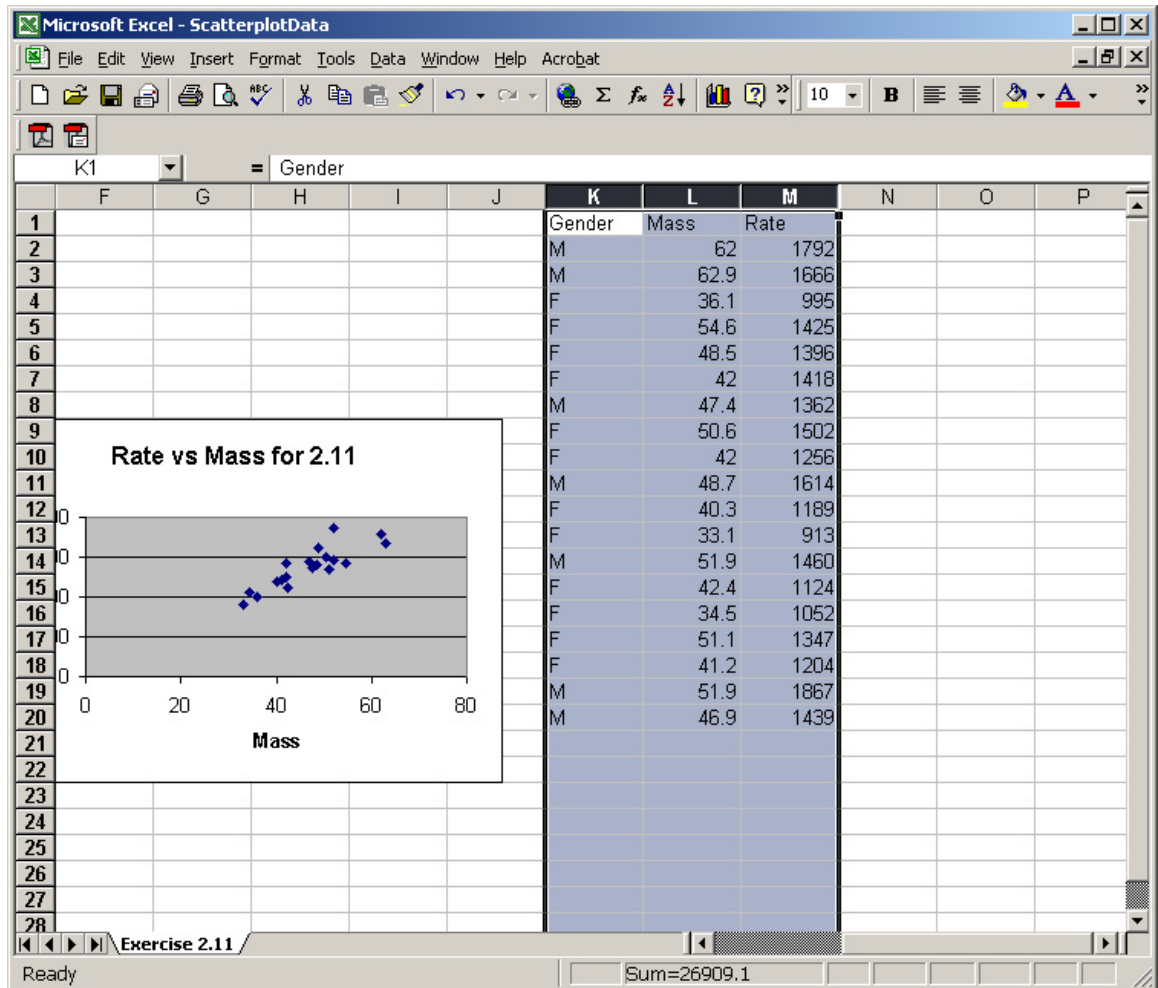
7. Finally excel will want to know where to place the final plot. Just press *Finish* here.

Making a scatterplot with different symbols

1. In class we talked about using different symbols on a scatterplot to represent different levels of a categorical variable. Excel allows us to do this, but it is a little bit harder than the simple plot we did before.
2. The first step is to sort the data so that all the female measurements are together and the male measurements are together. I recommend that you copy and paste the data columns into another location on the spreadsheet, so that the original data is not affected. To do this select the three data columns and select copy from the edit menu.



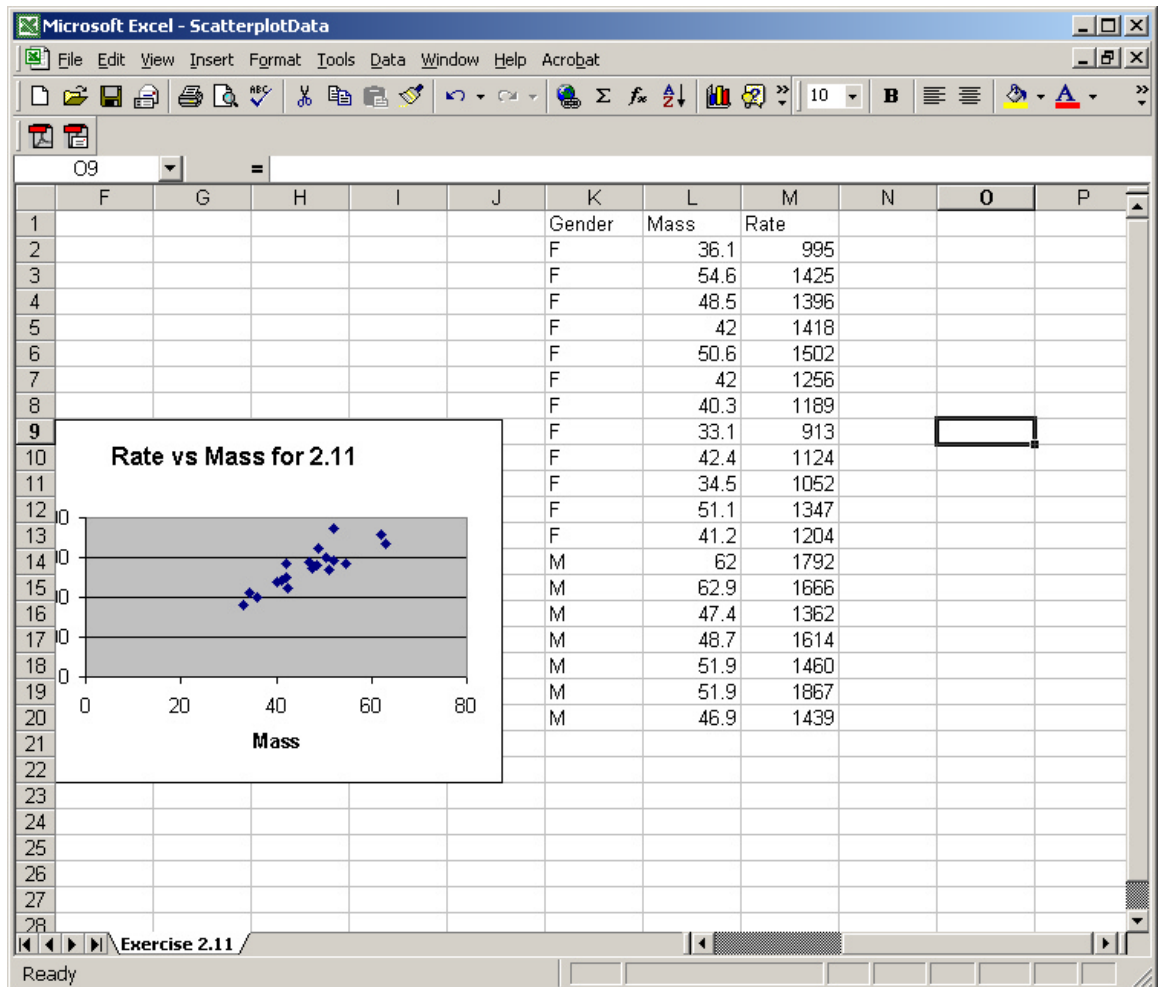
- Now move over to an empty part of the spreadsheet (say column K). Click on cell K1 and then choose paste from the edit menu. Your spreadsheet should now look something like this



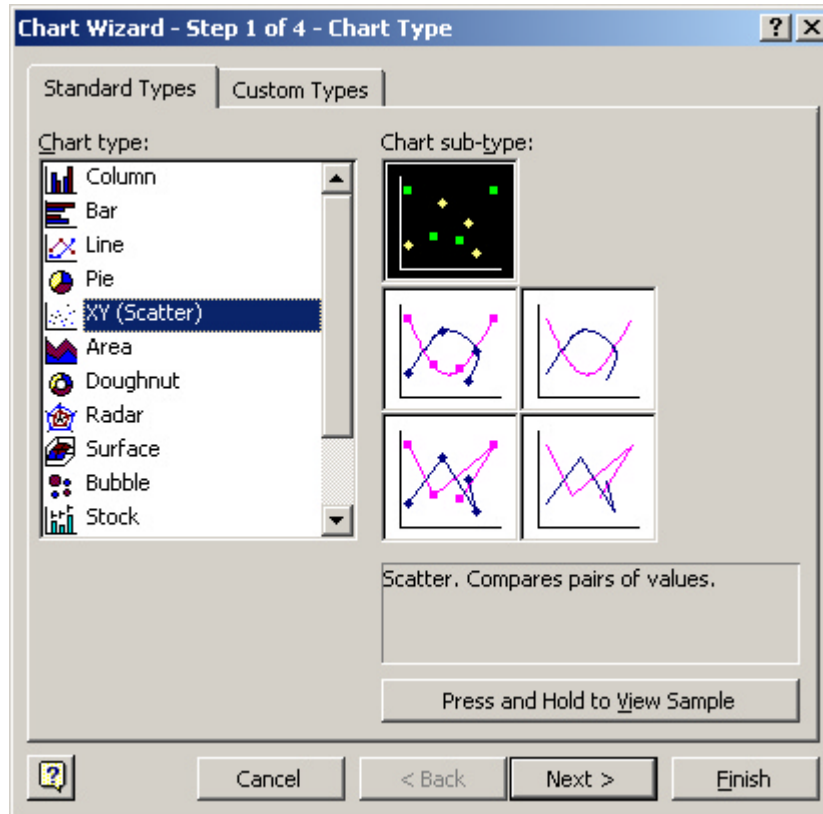
- Now we will sort the data. Select the data in the new columns (ie K, L, M) and then select Sort from the Data menu. In this sort dialog box make sure that *Gender* is in the Sort by drop down menu. Also make sure that the *My list has header row* check box is checked. To finish this dialog box click ok.

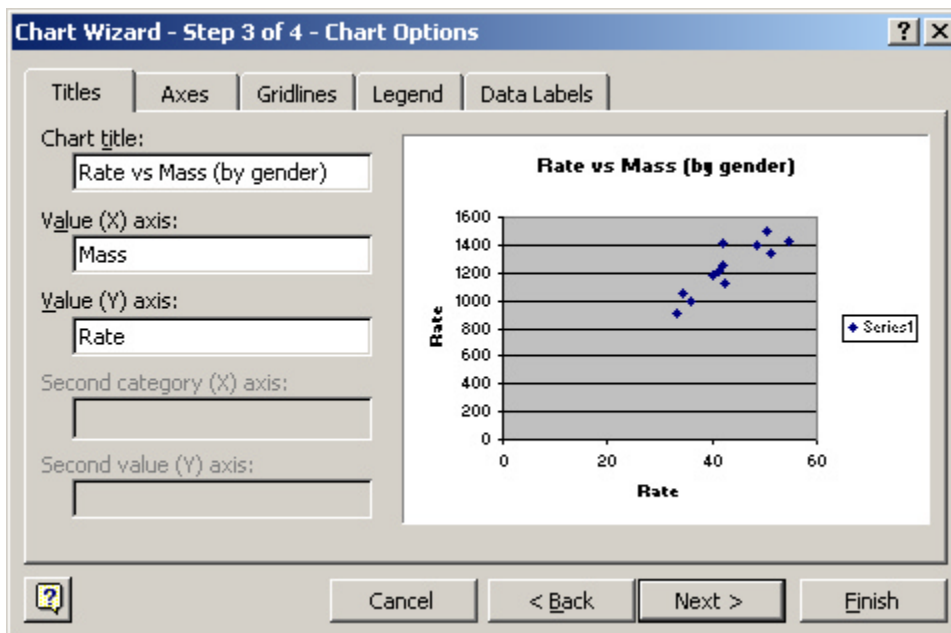
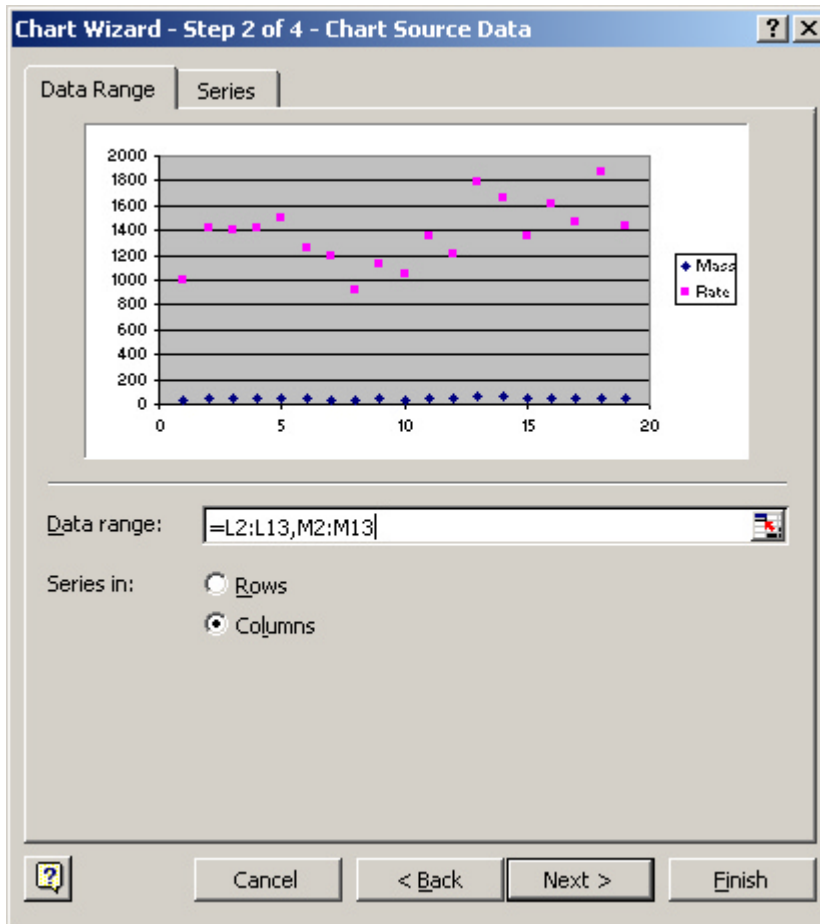


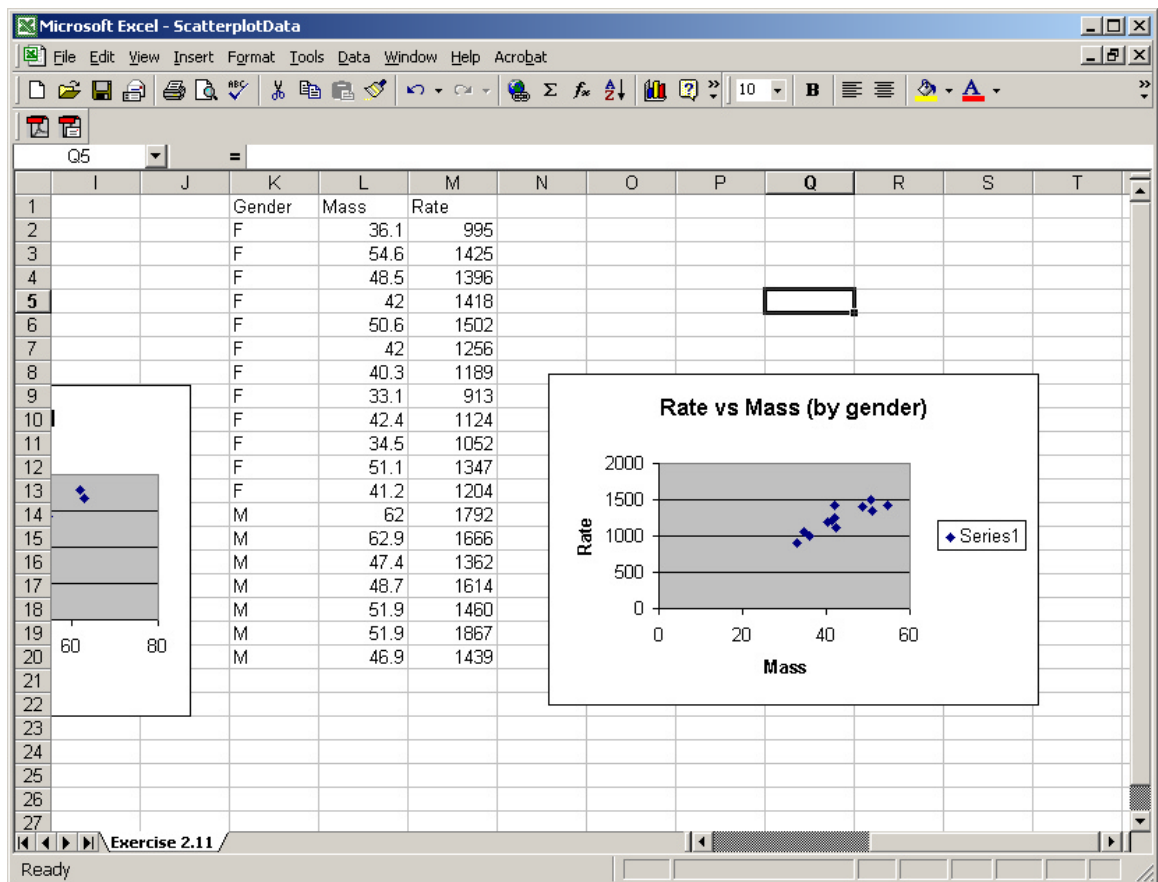
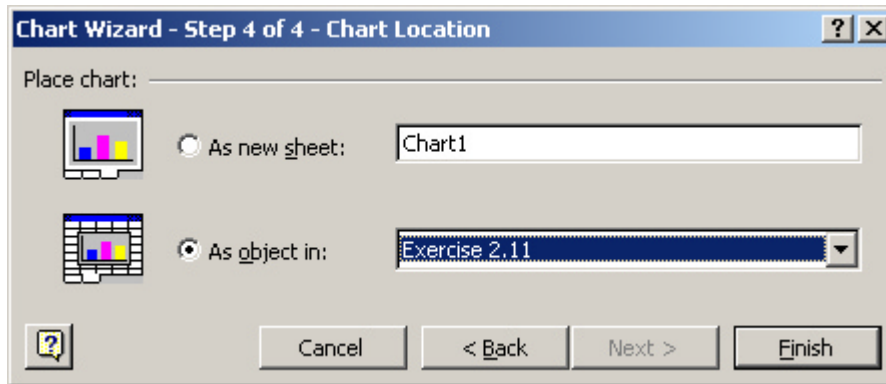
- The data should now be sorted by gender. Your spreadsheet window would look like this:



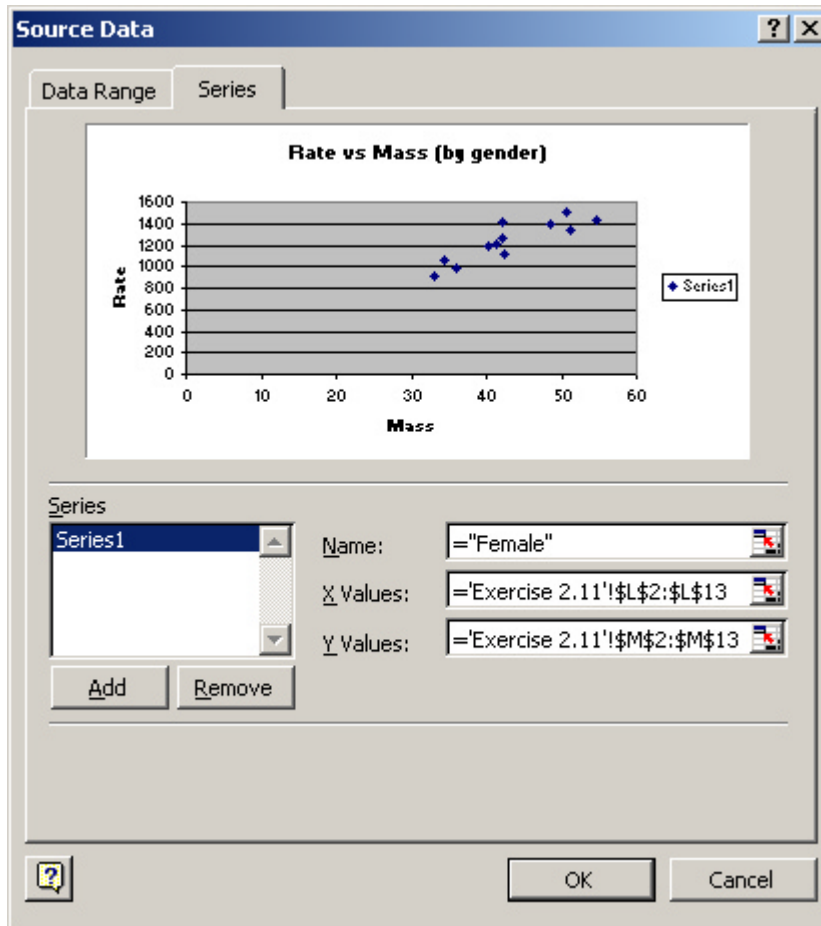
6. Next it is time to draw the scatterplot. First you should draw a scatterplot using only the female observations. You can do this following the steps given for making a simple scatterplot above (the major differences are that you leave the legend on the plot and that the ranges are a little different). The following pictures should guide you along



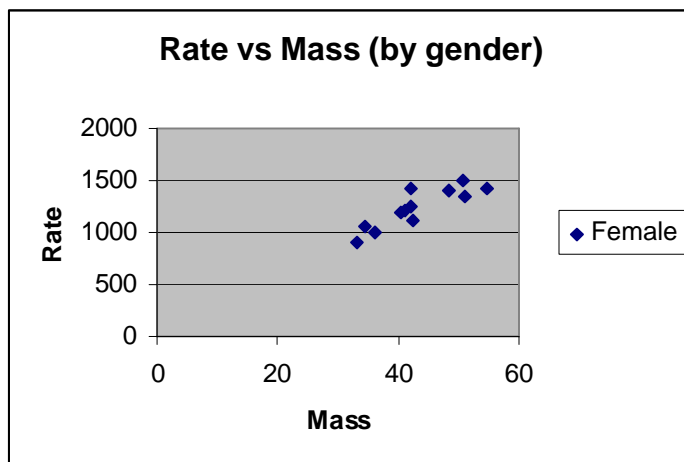




- At this point you now have a scatterplot of the rate versus mass values for the females. The next thing you need to do is change the legend text so that it says females. To do this right click on the scatterplot and select *Source Data*. Next click on the *Series* tab. Then type ‘=“female”’ into the Name: text field.

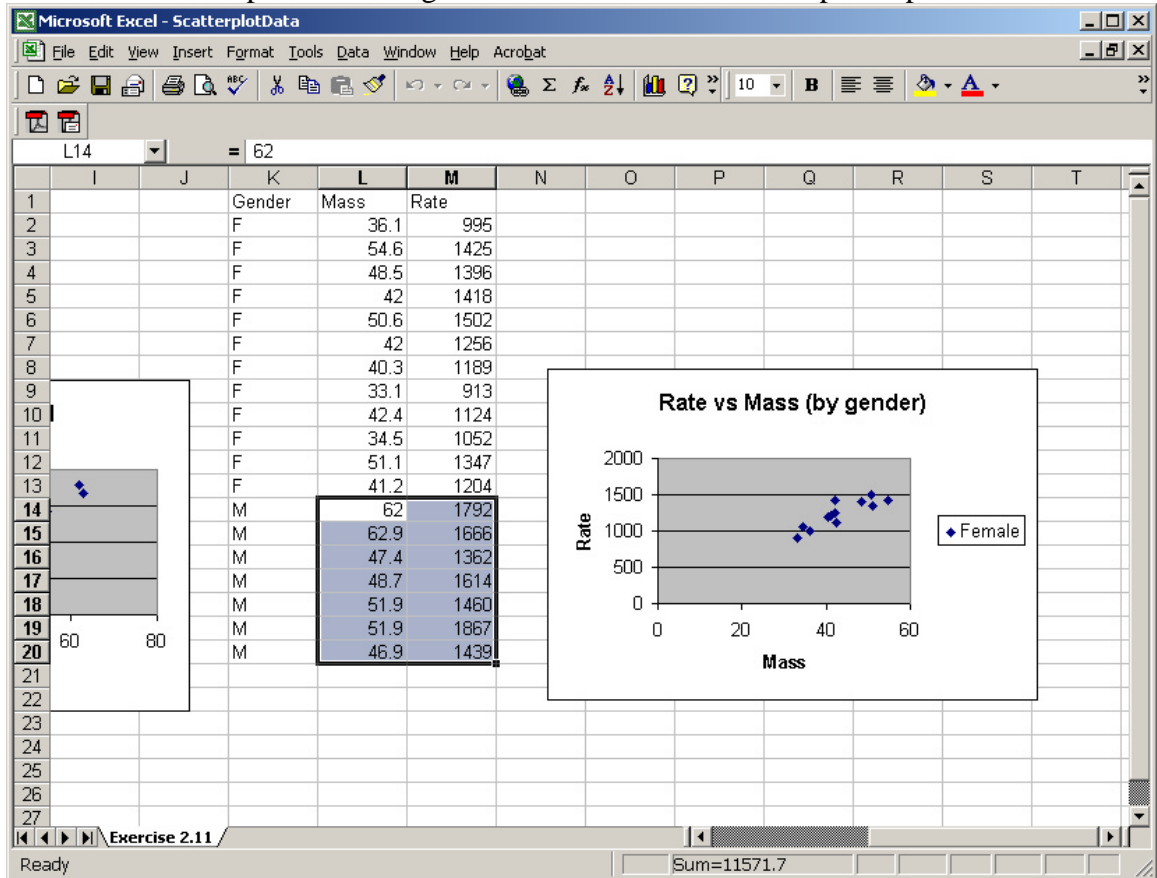


8. At this point you should now have a plot that looks something like this

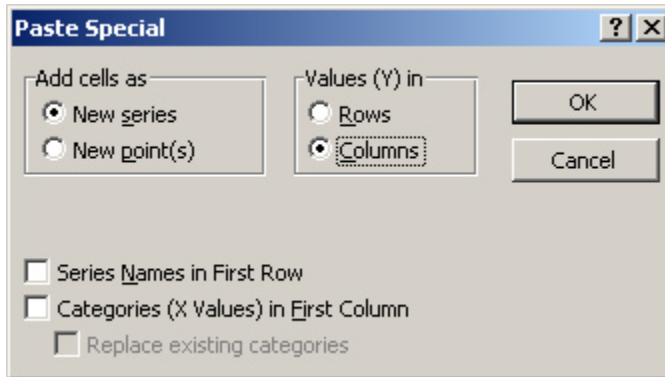


9. The next step is to add the male measurements to the plot. To do this select the male measurements in cells L14:M20 and select copy from the edit menu. Next

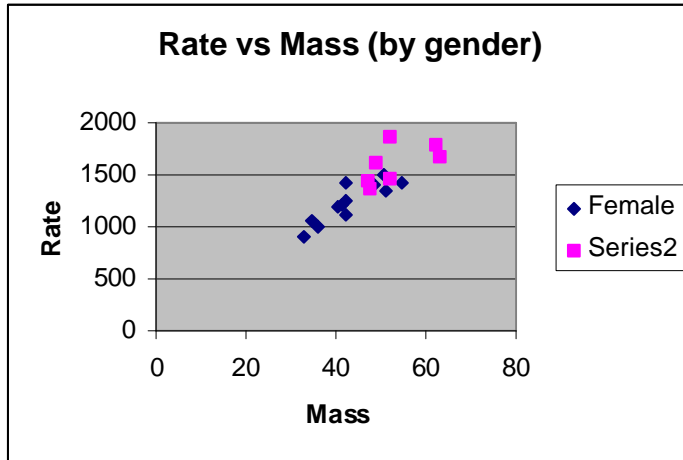
click on the scatterplot and then go to the edit menu and select paste special



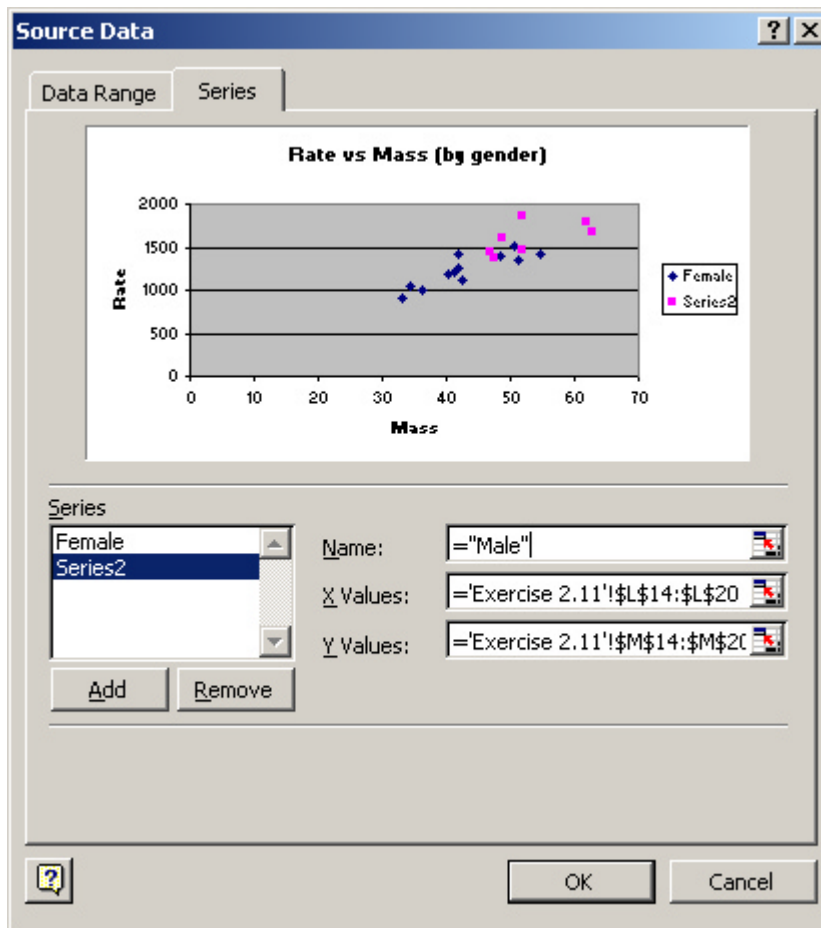
10. That should bring up the following dialog box. Make sure you have things checked in the same manner as below. Close the dialog box and click ok.



11. Your plot should now look like the following:



12. The last thing to do is to change “Series2” to “Male”. Basically you right click on the plot. Choose Source Data, go to the series tab and type in “=Male” into the name field for series 2.



13. Finally click ok. Your plot is finished. It should look like this:

