## Making Charts using AppleWorks Spreadsheets

Follow these instructions to learn how to make a broken line graph using Mr. Caruso's phone bill for 1993. You may not be able to go through it all in one sitting.
Remember where you had left off (by marking it on this sheet) and SAVE YOUR WORK!!
**Please read each step completely BEFORE you carry it out on the computer.**

1. Open AppleWorks. Choose spreadsheet. Save your work using the following :
   **chartmaking**

2. You want to type in the following data:

| | A | B |
|---|---|---|
| 1 | Phone Bills | Year 1993 |
| 2 | Jan | $52.99 |
| 3 | Feb | $68.73 |
| 4 | Mar | $65.67 |
| 5 | Apr | $61.37 |
| 6 | May | $67.51 |
| 7 | Jun | $52.96 |
| 8 | Jul | $47.85 |
| 9 | Aug | $52.41 |
| 10 | Sep | $65.91 |
| 11 | Oct | $51.55 |
| 12 | Nov | $50.50 |
| 13 | Dec | $39.85 |

You **do not** have to type in the dollar sign. Highlight the entire Column B by clicking the letter B at the top of the column.
Go to the menu, point to the **Format** window, drag down to **Number...** and click.
A window will appear that has Number, Date, and Time. Under Number, we click the circle marked **Currency** and press OK. This tells the computer that any number typed into Column B is a dollar figure and the computer automatically inserts the dollar sign.

Now, go ahead and type in the data.

3. Highlight the data in Columns A and B from Rows 1 to 13. To do this, point to cell **A1**, press and hold the mouse button and drag down to cell **B13**. Let go.
   The first two columns and thirteen rows should be highlighted (or shaded).

4. Point the mouse to **Options** in the menu.
   Drag the mouse to **Make Chart...** and click the mouse button.

5. The first thing that you will notice is a window called **Gallery.** This window allows you to choose the type of graph you wish to make. For this example, choose the type called **Line.** Click **OK.** What appears is a narrow broken line graph that is centred on your spreadsheet. To view the broken line graph better, we need to enlarge the graph. Click on a corner of the chart and drag it until you reach the edge of the screen. Don't go too far or you will travel off the screen. Do it for each corner until your graph is large enough to fill the screen.

6. To continue, go to the **Edit** menu, and drag to **Chart Options...**
   Experiment with the different types of graphs and with Colour, Horizontal, Shadow, and 3 - dimensional.
   When you are finished experimenting, return your chart to line graph.
   **Do not** use Horizontal nor Shadow for this example.
   You may use those for your next graph.

7. Go to **Edit**. Drag to **Chart Options...** and click. The **Gallery** appears again.
You want to click **General** on the left. This aspect of the chart determines the columns that you are using in your spreadsheet for your graph. Make sure that:

     a. **Chart range** states that **A1..B13**
     b. **Series in Columns** is chosen.

If they are not, then make the changes. If they are, click **OK**.


8. Go to **Edit**. Drag to **Chart Options...** and click. You now want to click **Axes**.
This part will help you organize the information on the two axis of the graph.
The **x - axis** is the horizontal line on the bottom of the graph.
Your graph will have the twelve months on this axis.
The **y - axis** is the vertical line (going up and down) on the left hand side of the graph.
Your graph will have the dollars on this axis going from $0.00 to $100.00 in increments of $10.00.

Click **X axis**. Type in "Months" beside **Axis label.**
Click **Y axis**. Type in "Dollars" beside **Axis label.**
For **Minimum**, type 0; **Maximum**, type 100; and **Step size**, type 10.

Click **OK.**
Observe how the graph has changed. Go back to **Axes** by following this shortcut. Move the mouse on to the broken line graph and double-click. This has the same effect as going to **Edit** and then dragging down to **Chart Options...**, only it is a lot faster.
Click on **Axes** and experiment with **Tick marks, Grid lines,** and **Minor** (for this one, you need to type in a number - try 5).

When you have completed your experimentation, return your axes to those you had before you experimented.

9. Double click on the graph.
Go to **Series.**
This allows you to display data right on the broken line graph.
Click the box beside **Label data.** You want the data displayed at the top of the broken line, so click the top centre circle.
Click **OK.**

10. Go to **Series** again.
You can also change the symbol used to mark the various points on the broken line graph. Simply choose the symbol you want and click **OK.**
Try experimenting with changing colour and the size of the symbol by going back to **Series.**


When you have completed your experimentation, return your series to that you had before you experimented. (i.e. return the symbol to the 'X', the colour to red, the symbol size to 6 points and remove the '✓' from Label data)

11. Go to **Labels.**
   This section allows you to work with the title of the graph, as well as the location of the title and the legend. You want to change the title to "(Your Name)'s Graph of Mr. Caruso's Telephone Bills" at the top centre of the graph in shadow and you want the legend at the bottom centre of the graph in shadow.
   Beside **Title** type in "(Your Name)'s Graph of Mr. Caruso's Telephone Bills."
   Locate the title on the graph by clicking the top centre circle in the picture at the right.
   Click the **Horizontal** and **Shadow** boxes beneath it. Make sure the **Legend** box is clicked, as well as the **Horizontal** and **Shadow** boxes beneath it.
   Locate the legend on the graph by clicking the bottom centre circle.

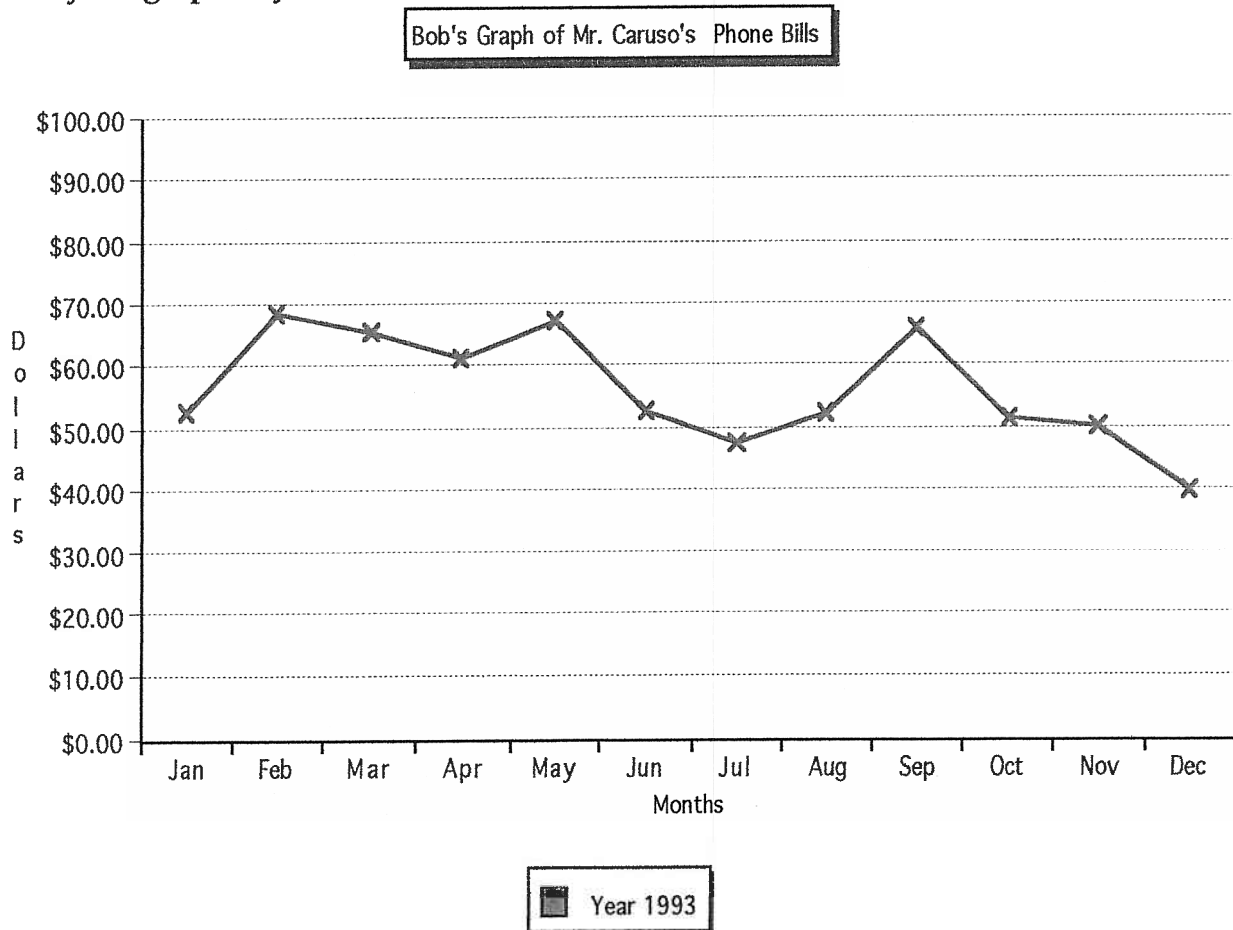   Click **OK** and observe the title and the legend.

12. You are <u>almost</u> ready to print. If you try to print now, your graph will be printed on two different pages and will be cut in half. You can fix this using one of two ways. You can adjust the graph or you can adjust the page.
   <u>To adjust the graph.</u> Go to **Window** and click **Page View.** You will notice that part of your graph is on another page. Click on the graph and grab one of the corners of the chart. Drag and adjust the size until it fits inside the page.
   <u>To adjust the page.</u> Go to **Window** and click **Page View.** You will notice that part of your graph is on another page. Go to **File** and then **Page Setup** (sometimes known as **Print Setup**). Choose **Landscape.** Your graph should now be able to fit on the page.
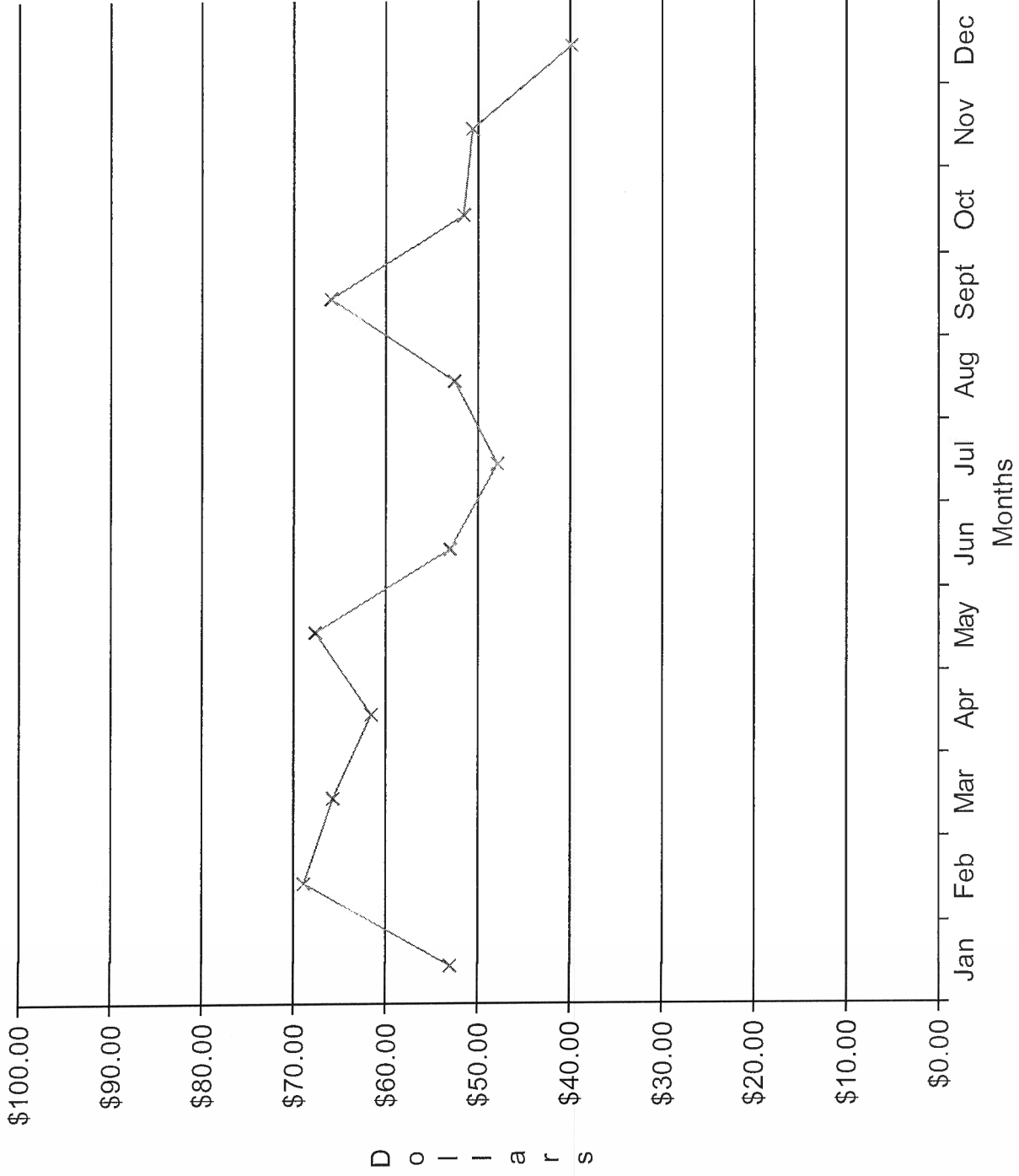
13. Now you are ready to print. <u>Save</u> it first! Then choose to print only <u>one</u> page.

**Congratulations! You have just completed your first graph on AppleWorks. Don't forget to hand in your graph to your teacher.**

Bob's Graph of Mr. Caruso's  Phone Bills



Months

Year 1993

Bill's Graph of Mr. Caruso's Telephone

Year 2009

$100.00
$90.00
$80.00
$70.00
$60.00
$50.00
$40.00
$30.00
$20.00
$10.00
$0.00

Dollars

Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sept  Oct  Nov  Dec

Months

A  B  C  D  E  F  G  H  I

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