

# Creating an Excel 2000 Spreadsheet Using Windows 95/98/Me/2000

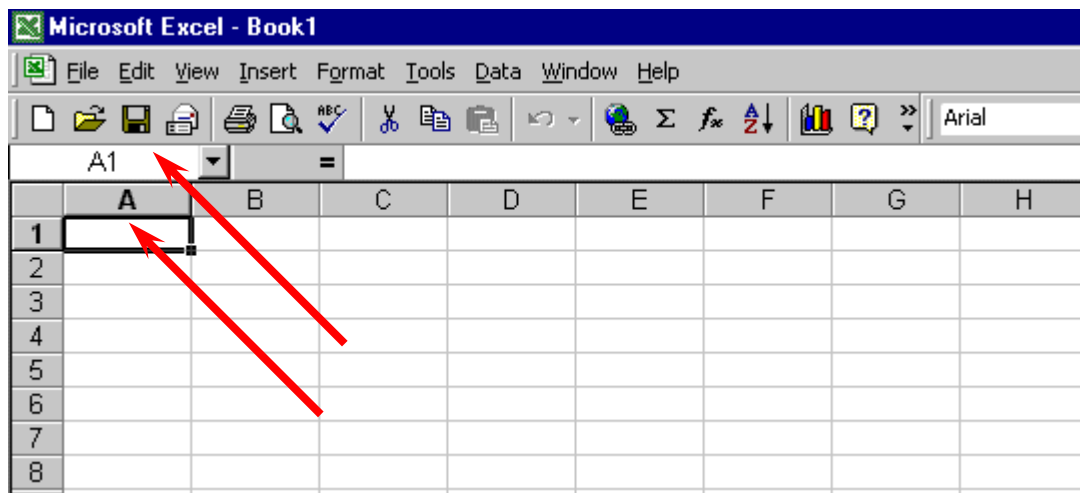
## Starting Excel 2000

In the following exercises you will **learn** some of the necessary steps to **create a spreadsheet** using **Microsoft Excel 2000** for Windows 97, 98 and 2000. You will learn not only how to type various items into the spreadsheet, but also how to copy columns, widen columns, fill columns, add, subtract, multiply, divide, and a variety of other things.

To begin, **load** the spreadsheet by **clicking twice** on the **Excel 2000 Windows Icon** in the **Windows Screen**. If you do not see an Excel Icon, click-on the **Start Button** in the **lower left corner** of the screen, move the cursor up to **Programs**, and then move to **Microsoft Excel** and click-on it.



A **spreadsheet** is a “**number manipulator**.” To make the manipulation of numbers easier **all spreadsheets** are organized into **rows** and **columns**. Your initial spreadsheet will look something like the following:



**Notice** that the “**main**” part of the spreadsheet is composed of **Rows (Labeled 1, 2, 3, 4, etc.)** and **Columns (Labeled A, B, C, D, etc.)**. There are a lot of rows and columns in a spreadsheet. The “**intersection**” of **each row and column** is called a **cell**. In the image above the **cursor is on the “home” cell – A1**. **Notice Row 1 and Column A are “bold.”** This **indicates** what is called the “**address of the cell**. **Notice right above cell A1, that A1 is displayed in a small box** called the **Name Box**. Whenever you “**click**” on a cell the address of that cell will be shown in the Name Box.

In this tutorial, whenever we indicate that you need to **click** the mouse, it will mean to **click** the

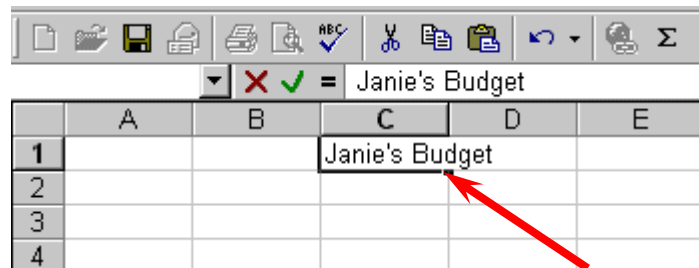
**left mouse button** – unless we indicate that you should click the right mouse button. So, always “click left” unless we tell you otherwise.

## Moving Around the Spreadsheet

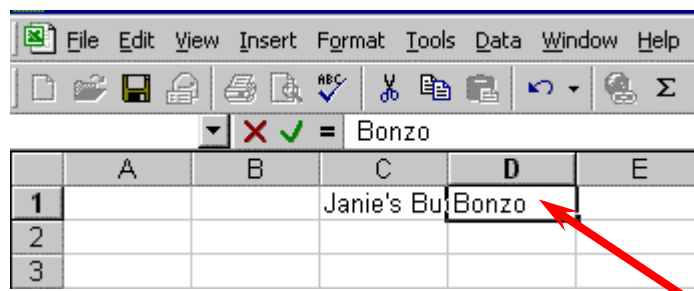
You can move around the spreadsheet/cells by **clicking** your mouse **on** various **cells**, or by using the **up, down, right and left arrow movement keys on the keyboard**. Or, you can move up and down by using the “elevator” bars on the **right and bottom** of the spreadsheet. Go ahead and **move around the spreadsheet**. **Hold down the down arrow key on the keyboard** for a few seconds – then **click-on a cell**. **Notice** how the **Name Box** always **tells you “where you are.”** Now hold down the **right arrow key** on the keyboard for a few more seconds. **Notice** how the **alphabet changes from single letters (A, B, C, .... Z) to several letter combinations (AA, AB, AC)**. There are **hundreds of columns** and **thousands of rows** in a spreadsheet. **Anytime** you desire to **return to the Home Cell (A1)** simply **click-in the Name Box** and **type-in A1**. Then **tap the Enter key** and you will **go to cell A1**. You can go to any cell by this method. Simply type-in a row and column, tap the Enter key, and you’ll go to that cell.

Now that you have the “feel” of how to move around Excel spreadsheet, **go to the cells as indicated below** and **type-in** the following:

**C1 (Your Name)'s Budget.** It should **look similar to the image below**. **Do not tap Enter** when you finish

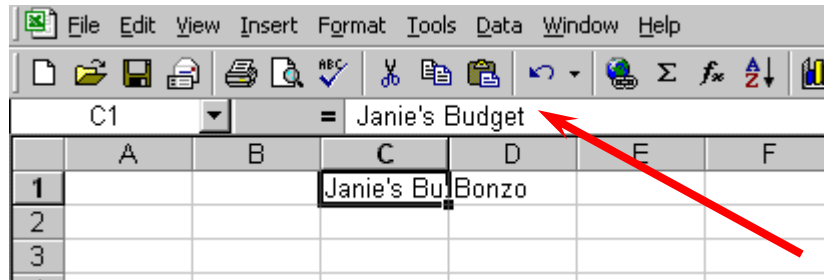


**Look** at cells **C1** and **D1**. Notice how your **entry has spilled over from C1 into D1**. Sometimes this is a problem, and sometimes it is not. Now **move to D1** and **type-in** the word **BONZO** and **tap Enter**.



Notice how **Bonzo** now **COVERS** the **right part of your original entry!!** Now **move back to**

cell **C1** and **click-on it**. Look at the upper part of the spreadsheet just above the cells where you typed. Your name and the word budget are still there. Bonzo only **COVERED** the **portion in cell D1**. See the image and arrow below.



There are **several ways** to **take care** of this. For the moment **move back** to cell **D1** and **click-on cell D1**. Tap the **Delete** key above the arrow movement keys on the **keyboard**. Notice that **Bonzo disappears** and your **entire entry reappears**. This is one way to expose the entry. We'll look at some others as we go along.

Now we'll continue making some entries. **Move** to the **following cells** and **type-in** the **information indicated**.

If you happen to **make a mistake** simply **retype the entries**. Later on we'll see how to edit mistakes. Any time you want to replace something in a cell you can simply retype a new entry and it will replace the old one.

**Cell      Type-in**

**A3      INCOME**

**B4      Parents**

**B5      Job**

**B6      Investments**

**B7      Total**

**A10     EXPENSES**

**B11     Food**

**B12     Beverages**

**B13     Parties**

**B14     Miscellaneous**

**B15     TOTAL**



Your spreadsheet should now look like the picture on the right.

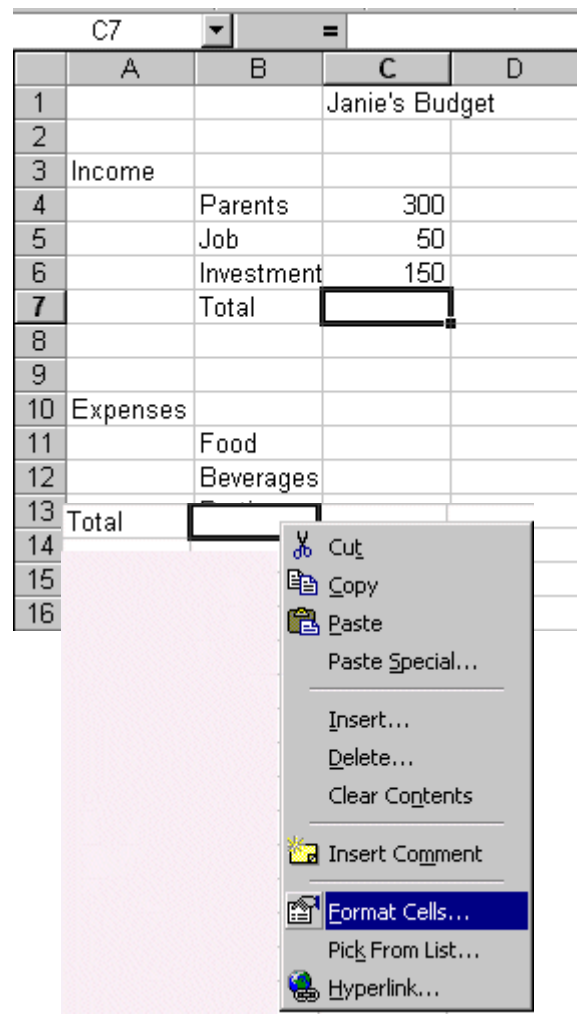
At this point you probably have noticed, the words "Investments" and "Miscellaneous" run over the spaces given in the blocks. Do not be concerned at this point. We'll soon fix this.

Now, type-in the following:

**C4    300**  
**C5    50**  
**C6    150**

Your spreadsheet should look like the one on the right. I would like to place an underline at the bottom of the three figures so that we can indicate a total below – in cell C7. Point to cell **C7** with the mouse (That's where we want the line -- **always move the cursor to the place where you want to insert a line.**) With the Arrow on cell **C7** tap the **right mouse button**.

A sub-menu with a caption **Format Cells** appears.

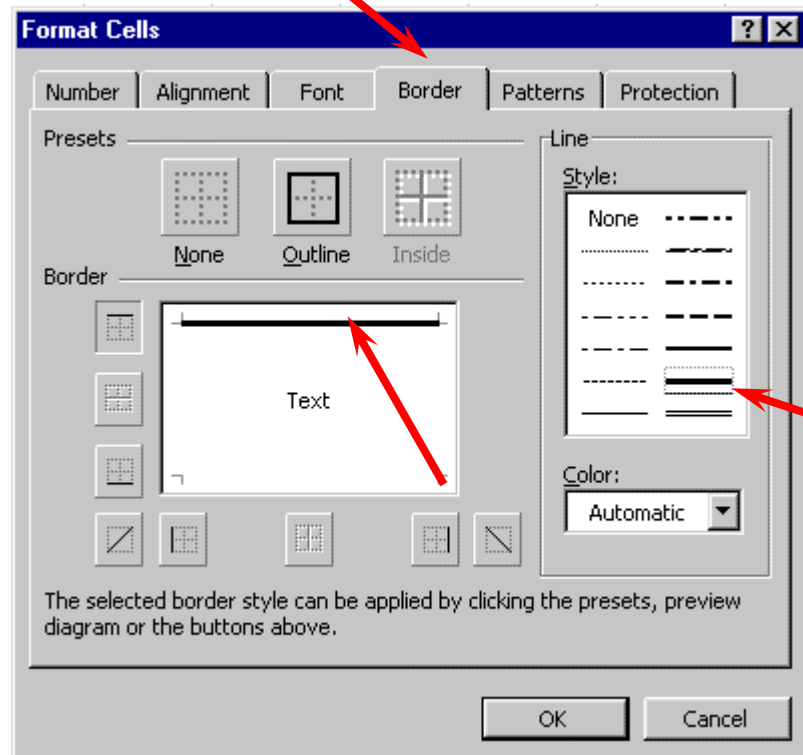


The **right click** will “always bring up” a menu that is “tailored” to the “place” where you click. This will work in any Microsoft Windows product. You can always tell “where” you click the right mouse button for the cursor arrow will always be in a corner of the menu that appears.

Select **Format Cells**.

When the screen below appears, select **Border**.

Look at the **Line Style** box in the **lower right**. There are several types of lines that you can choose. Point to the **thick single line** in the **Styles Area** (see arrow) and click the **left** mouse button. A **box will go around the line**. Look at the area which says **Border**. Point to the **upper part of the Text line box** (see arrow) and click the **left** mouse button. A **thick black line will appear at the top** of the **Text** box.



If the thick line does not show-up at the top of the Text box, click-again at the “top line area in the Text box” and the line will “disappear”. Then click-on the thick, single line in the Line Style box again and repeat the previous instructions. If, somehow, you make a **mistake**, simply **click “on and off in the Text line boxes.”** You will notice that the lines appear and disappear. This is called a “toggle” in computer jargon. So, work at this until you get the line on the top or where you want it. We have just indicated that we want a single thick underline at the top of the cell C7. Point to **OK** and **click** the **left** mouse button.

When you **return** to the **spreadsheet click somewhere other than cell C7**. This is called “**clicking away**.” You should now **see a line** at the **top** of cell **C7**. Sometimes the box highlight hides the lines. If you “messed-up”, try again.

Now type in the numbers in the cells indicated.

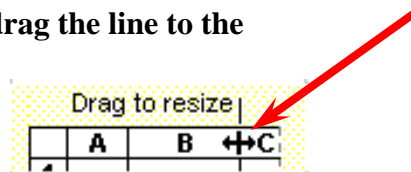
|            |            |
|------------|------------|
| <b>C11</b> | <b>30</b>  |
| <b>C12</b> | <b>50</b>  |
| <b>C13</b> | <b>150</b> |
| <b>C14</b> | <b>70</b>  |

Now, **underline** the **top** of cell **C15** like you did cell **C7**.

## WIDENING COLUMNS

You probably **noticed**, as you typed in the numbers, **some** of the **words** were just **too wide** for the default **cell width** (Investments and Miscellaneous - just like Bonzo). Let's **widen column B** to take care of this.

Slowly move the mouse arrow to the **right edge** of the **B** cell (**between the B and the C**). It will turn into an **arrow pointing right and left with a small vertical line in the middle**. **Hold down** the **left** mouse button and **drag the line to the right**.

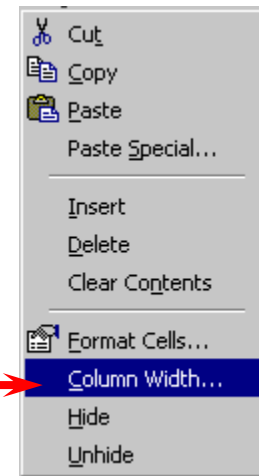


As soon as you **start to drag** a **dotted vertical line** will **go down the spreadsheet** and **move as you hold down the left button and drag the mouse**. **Keep dragging** to the right **until** you are **past the widest word** and a bit more (for some space). Release the button. The column is widened. Notice in the upper left corner of the screen, below File in the menu bar, and above the buttons, that as you hold down and drag that it tells you that current width of the column.

| B             |
|---------------|
| Parents       |
| Job           |
| Investments   |
| Total         |
| Food          |
| Beverages     |
| Parties       |
| Miscellaneous |
| Total         |

This is one way to widen a column. Here is **another way**. Point to the **B at the top of column B** (in the **Gray** area) and click the left mouse button (The **cell** should turn **black** and the **column** turn **blue**).

Now, **keeping the cursor** somewhere in the “**blue**” area, click the **Right Mouse Button**. Notice that a **menu** with **Column Width...** appears. **Click-on Column Width...** and **type in 15**. This is another way to widen a column.

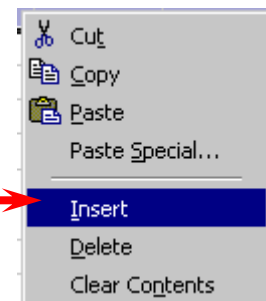


## INSERTING ROWS

Oops... a **mistake** (on purpose). We **haven't left enough room** at the top of the spreadsheet to **insert** some budget **months**. So... move the cursor to the **gray 2** along the **left edge** (this is the second row) so we can **insert two new rows**. **Click the left mouse button**. You will notice that the whole row goes **blue** and the **2** turns **black**. **Make sure the cursor arrow** is either **on the 2** or **somewhere in the blue row**.

|   | A      | B       | C              | D | E | F |
|---|--------|---------|----------------|---|---|---|
| 1 |        |         | Janie's Budget |   |   |   |
| 2 |        |         |                |   |   |   |
| 3 | Income |         |                |   |   |   |
| 4 |        | Parents | 300            |   |   |   |

Click the **right** mouse button. A drop down menu will appear. Point to **Insert**. **Click the left button** on **Insert**. Notice how **one row** was **inserted** and how **everything below moved down**. Do this **again** to **insert another row**. Excel, and all spreadsheets, will remember where they moved your work and automatically adjust for these changes. **Income** should **now** be in **cell A5**.

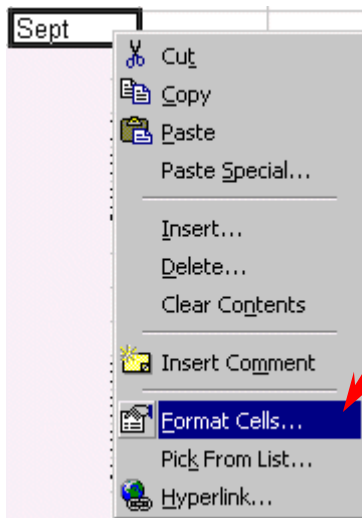
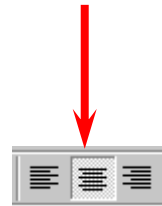


## ALIGNING CELLS

Now we'll type some more. Go to

### C3 SEPT (Type in and tap Enter)

Notice again how **SEPT** is **automatically left aligned**. Logically, since you are using Excel in the English version, the text is left aligned so that all of the text lines up nicely in the column cells. One way to do **center SEPT** is to simply **click-on** the **Center** button in the **button bar** at the **top of the screen**. **Make sure** that you are **ON cell C3** when you click (see image above right).

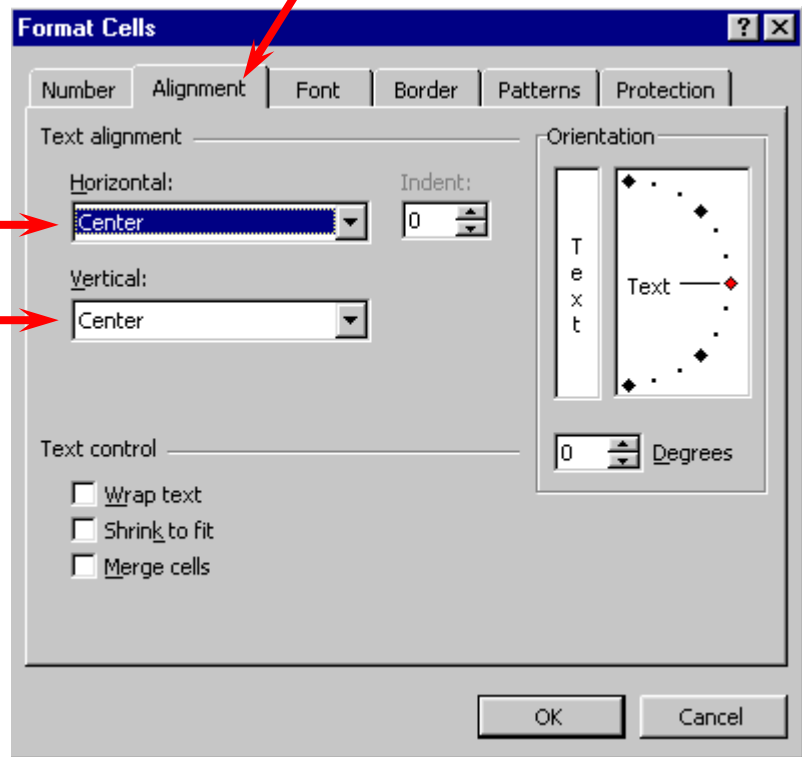


Another way to do this is to **center** the word simply **click right** on cell C3. Then click on **Format Cells**.

When the **Format Cells** Menu appears, **click-on** the – **Alignment Tab** and then **click-on -- Horizontal - Center --Vertical - Center -- OK**. Try it.

This is how you can align words for neatness. You can also point to several cells you want aligned and do this. We'll try that next.

Now type in the cells indicated.



**D3**    **OCT**  
**E3**    **NOV**  
**F3**    **DEC**  
**G3**    **MONTHLY TOTALS**    (correct the width)

Next we'll highlight cells **D3 through G3**. To do this, point to **D3** and click the **Left Mouse** button. Then, **holding down** the left mouse button, **drag the mouse to the right through G3** – when the cells are highlighted – **take your finger off of the left mouse button**. Then **point** to the **group of cells** and click the **right** mouse button to bring up the **Format Cells** menu. Click on **Alignment** and choose **Center**. Then point to **OK** and click the left mouse button. All of the cells will then be as you desire. Finish off by clicking on **Center**.

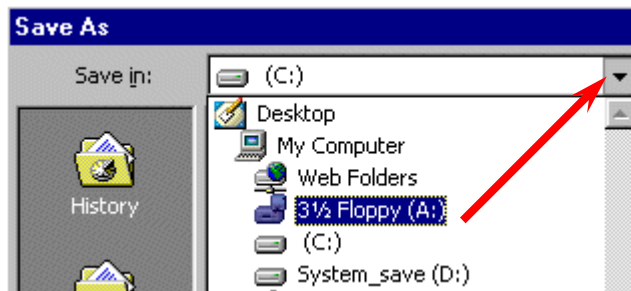
| B | C              | D   | E   | F   | G              | H |
|---|----------------|-----|-----|-----|----------------|---|
|   | Janie's Budget |     |     |     |                |   |
|   |                |     |     |     |                |   |
|   | SEPT           | OCT | NOV | DEC | MONTHLY TOTALS |   |
|   |                |     |     |     |                |   |

You could also click the Center button as you did before.

**MONTHLY TOTALS** will **not fit its space** when you do this. But, **you know what to do**. Move the cursor over the line between cells G and H and drag the line to the right to widen the G cell just like you did a few minutes ago.

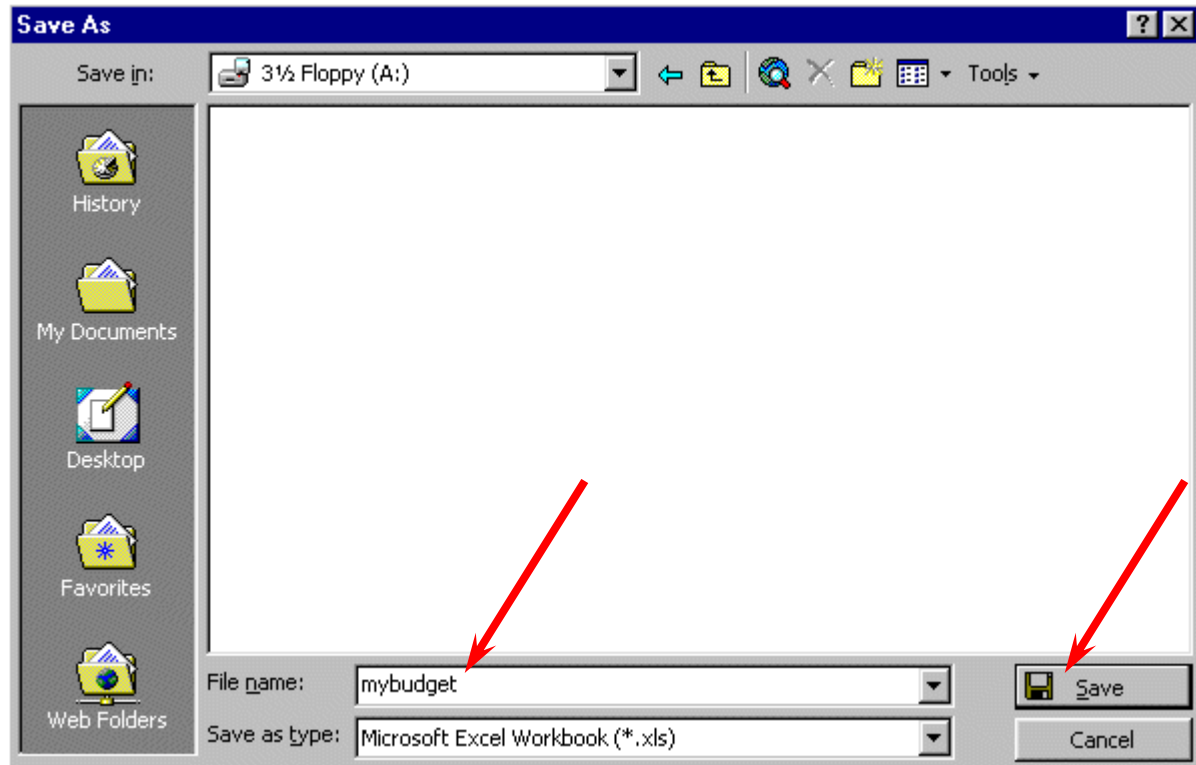
### SAVING SPREADSHEETS

We have done quite a bit of work so now is a good time to save. Point to the **File** menu at the top of the spreadsheet. Point to **Save As**. Click. A sub-menu box appears like the one at the right.



Notice in the **upper left corner** that there is a “**box**” to the **right** of **Save In:** with a down pointing **triangle** to the right. **Click-on** the **triangle**. This will **show** you **all** of the “**drives**” and “**folders**” where you may save your work. **Put a formatted 3 ½ diskette in the A Drive**, then click-on the **3 ½ Floppy (A:)**; this is where you will save your work.

You will then see:



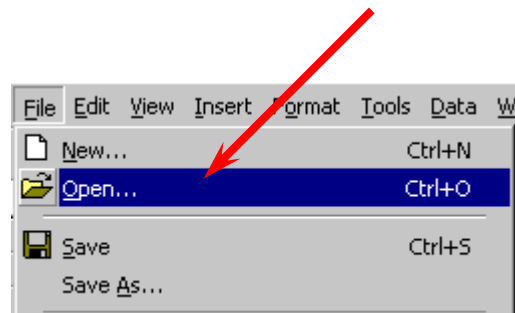
To the right of **File name:** **Delete** the information, which is in the box, and **type in MYBUDGET**. This is the name under which you are saving your file. (In the future you will choose logical names for your spreadsheets as you save them.) Now point to **Save** and click the left mouse button.

## EXITING SPREADSHEETS

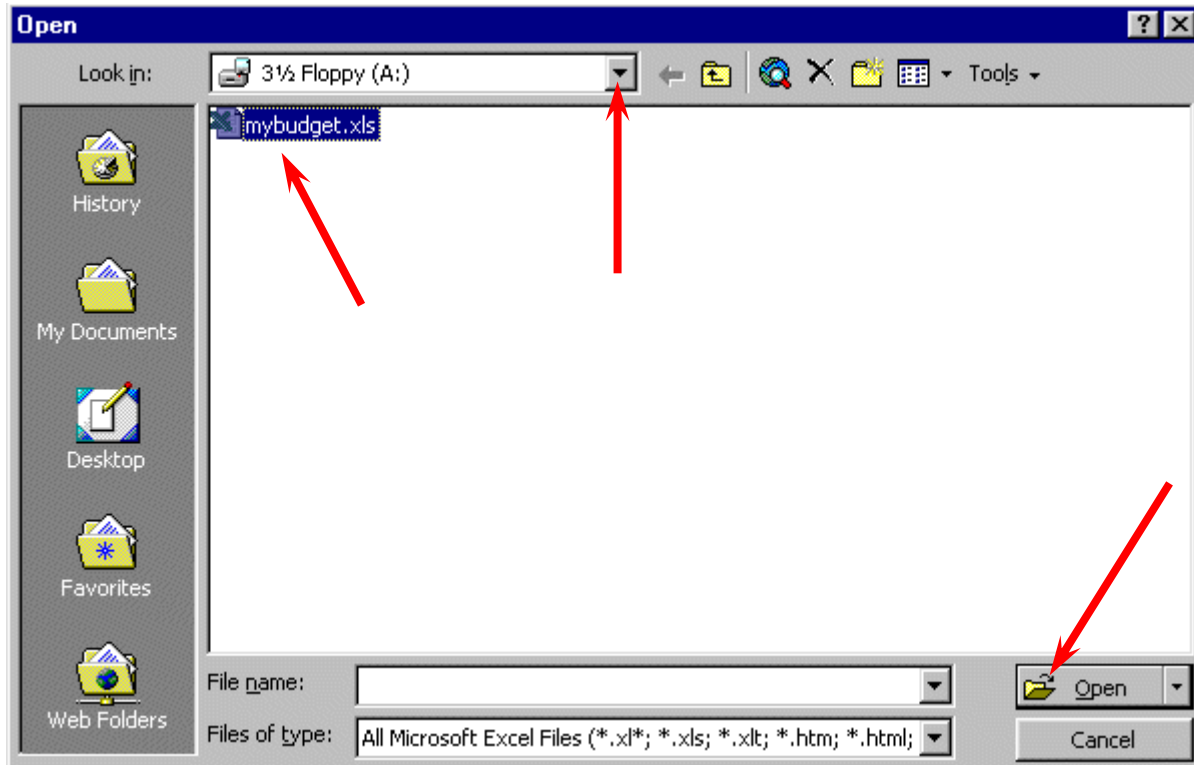
Anytime you need to leave your spreadsheet simply click on **File** in the **menu bar**, then click-on **Exit**. If you **have not saved** your spreadsheet, a reminder box will appear **asking you to do so**.

## RETRIEVING SPREADSHEETS

When you need to **return to a spreadsheet** you first load Excel, as you did originally. When Excel is on the screen, click-on **File** in the menu bar then click-on **Open**. The Open Menu will appear.



The following menu screen will appear:



**Click** on the **down triangle** to the right of the **Look in:** box (Similar to the triangle in the Save in: box). Click-on the **3 1/2 Floppy (A:)**. Files saved on the disk will appear in the box below. **Click-on** your file (**MYBUDGET**), then click-on **OK**. Your file will be opened. You could also double-click quickly on the file to open it.

Also, if you have not done so already, **move your cursor slowly over the "buttons" located below the menu bar**. You will notice a **little box** that tells you what these buttons do. These little boxes are called **Text Help** boxes. Many of them will **save** you extra "**clicks**" by using them. Notice, that under File and Edit in the Menu bar, there are a small folder (Open) and a diskette (Save). Clicking-on them will take you directly to Open and Save.

## ADDING NUMBERS

Next we want to learn how to add numbers. There are several ways to do this. Each method has its advantages and disadvantages.

To do this, begin by **moving** your cursor to cell **C9**, and clicking-on it.

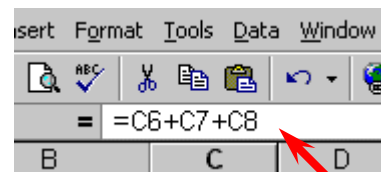
**Always move to the cell where you want the answer to be located.**

## TYPE-IN METHOD

We want to **add** the three numbers in cells **C6, C7 and C8**. To use this method **type-in** the following in cell **C9**:

**= C6 + C7 + C8    Tap Enter**

The **total** of these cells will now **appear** in **C9**. When you have completed typing you will **see** this **formula** in the area **below the menu bar**.



Go **change** the number in cell **C6** to **500** (and **tap Enter**). See how the total **AUTOMATICALLY** recalculates!!!

**THIS IS THE TRUE POWER OF THE SPEADSHEET !!!**

**Whenever a number is entered in a cell the entire spreadsheet will automatically recalculate.**

**Something happened here.** Notice how you typed in an **= before the cell location**. If you had simply typed in **C6 + C7 + C8**, Excel would have thought this entry was a **word** and this entry would have shown as you typed it.

Try this if you want. Any time you “create” and error in Excel, you can simply re-type or edit the formula to correct the error.

The Type in Method is really easy if you have a **few numbers and can see their cell locations on the screen**. If you have a lot of cells in the formula, that are on several screens, this is not such a great method.

## **Subtraction, Multiplication, and Division**

You can put in - for subtraction, \* for multiplication, and / for division. As you become more capable we'll, build some nifty formulas.

### **Point Method**

Again move to cell **C9** and **click-on it**. We'll now add the numbers a second way.

**First, tap the = and POINT the cursor to cell C6 using the arrow movement keys or mouse, now tap another + and move cursor to C7, now tap another + and move the cursor to C8 (Notice how as you " + and point " the addition formula is being built in cell C9), now tap Enter.** The same formula is built by this method.

This **method is good** when you need to move to **numbers that are spread out all over the place**. Some people like it best and use it all the time -- it's your choice.

### **Function Method**

Move again to cell **C9**.

Now **type in** the following: =SUM(

[This **tells Excel** that we are going to **sum** some **numbers** in a **RANGE** which will follow the =SUM(.]

There are **two ways** to put in this range:

**Arrow Key and Anchor Method:** With the **arrow keys move the cursor to cell C6**. As you move you will notice that the **cell** where the cursor is located **appears** after the =SUM(. When you get to **C6** tap the **. (Period) Key**. This is called an **ANCHOR** and **holds one end** of the **RANGE** in place. You will notice that a **C6:C6** appears. This is a **one cell range**. Now **move with the arrow keys to cell C8**. See how cells **C6, C7 and C8 are highlighted**. This indicates the **Range is C6:C8**. Excel assumes, logically, that these are the numbers you want to add. Now tap **Enter**. The numbers still add, but now the formula reads =SUM(**C6:C8**) instead of =C6+C7+C8 like it did before.

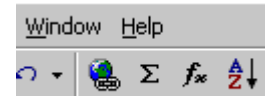
**Mouse Method:** Move again to cell **C9**. Type in =SUM(, as you did before. Now point to Cell **C6**. Hold down the left mouse button and **drag** the highlight down to cell **C8**. (Cells C6, C7 and C8 should be highlighted.) Now tap **Enter**.

This **=SUM Function** is a great way to **add a lot of numbers, or a block of numbers**. By simply anchoring, and using page downs or using the mouse, you can highlight lots and lots of numbers to add quickly. However, since it only sums you can't do subtraction, etc.

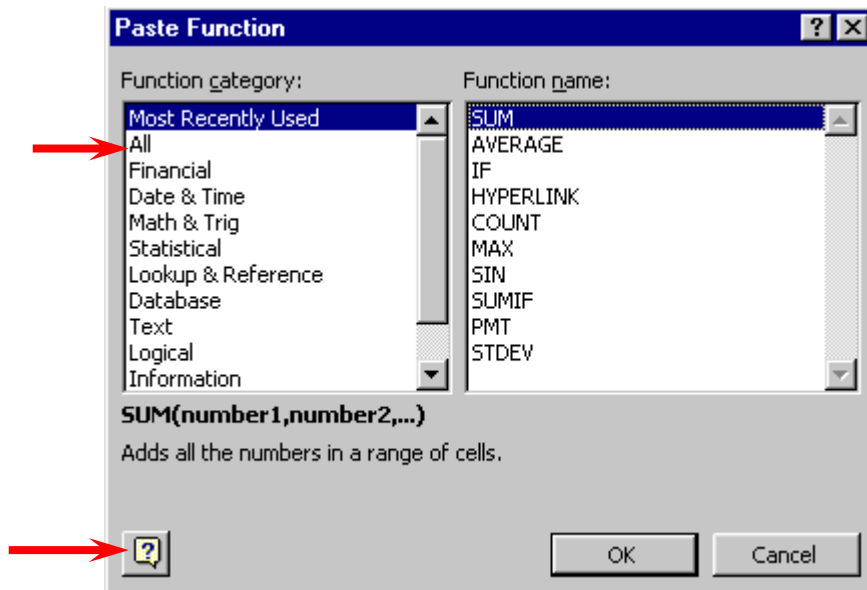
Point to cell **C9** again. Tap the Delete key to remove the formula currently in cell C9.

## **Paste Function**

There are a number of **formulas built into Excel**, like **Sum**. These formulas are called **Functions**. **Below the Menu Bar** (see right) you will see an "**f<sub>x</sub>**". **Click on it**.

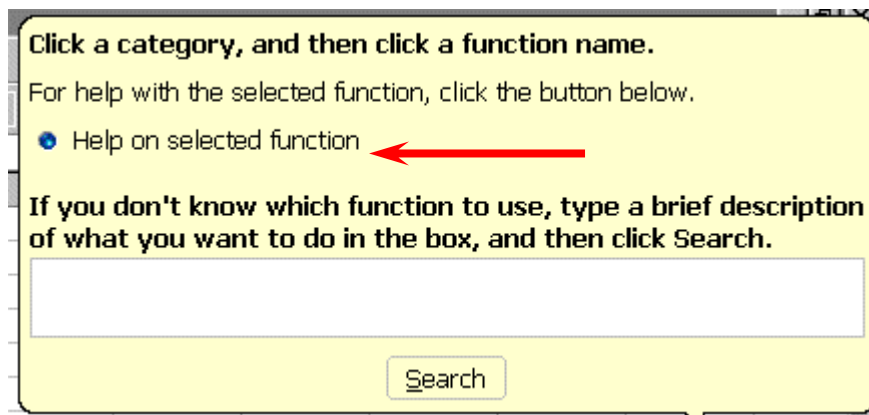
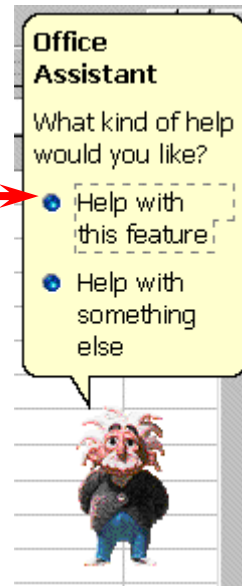


A **Paste Function Screen** like the one below will appear. **Read the information**.



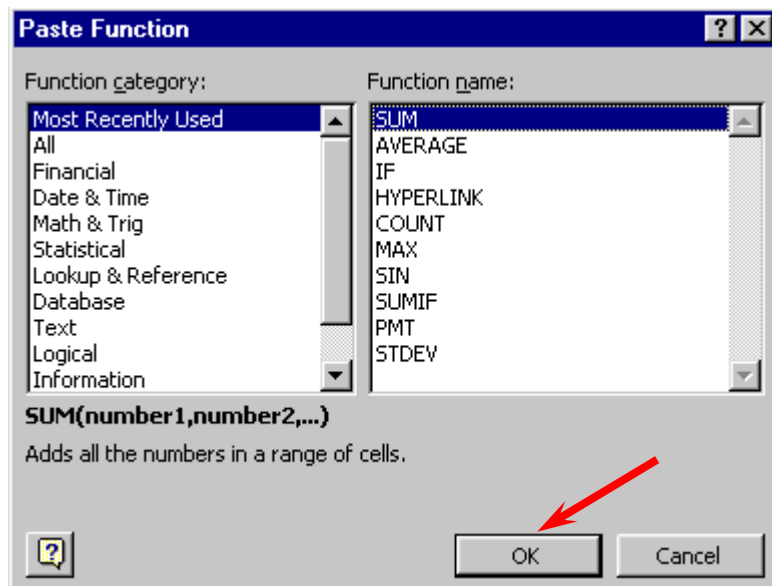
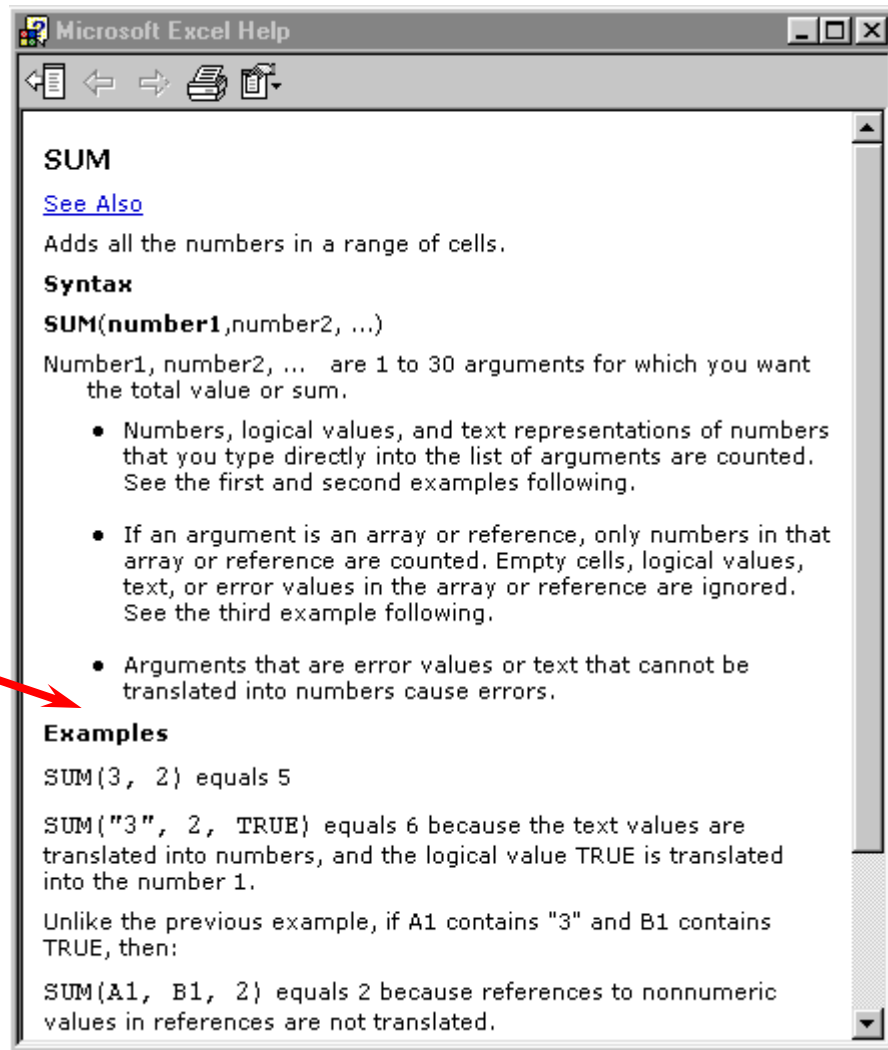
As you can see, there are **all kinds of formulas (functions)** that come with Excel (e.g. Statistical, Mathematical, Financial, etc.). We're going to use one of these to add the numbers again. Click-on the word **All** in the window under **Function Category**: On the right, under **Function Name** you will see a list of **all the functions** in Excel. Click-on the **down triangle** until you come to **SUM**, click-on it. Notice the small box with a **?** in the **lower left corner** of the Paste Function window. **Click-on it**.

The “**Office Assistant**” will appear (see **image on right**) and you can **ask it questions** (the little assistant may be a paper clip or just about anything). **Click-on the blue dot to the left of Help with this feature.** You will now see a help screen **similar to the one below.** When this screen appears, **click-on the blue dot to the left of Help on the selected function (arrow below)**



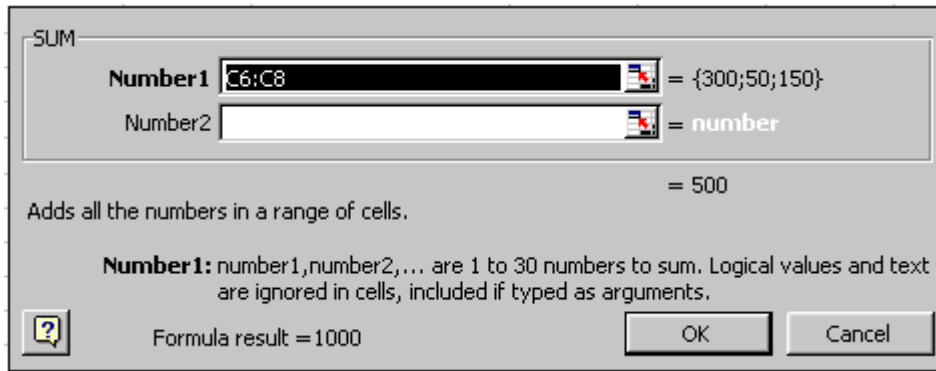
You will **now see a Microsoft Excel Help window** appear (**similar to the one on the next page**) that will show you **how to use this SUM function**, or any function. One of the really **neat** things about these Help windows is that there are **examples** for each function (see **arrow on next page**). Spend a few minutes looking at the SUM Help window and notice all of the features.

When you have reviewed all of the help you care to see, **carefully click-on the X at the upper right corner** of the blue bar to close the Microsoft Excel Help window (see **arrow on next page**). If you accidentally close the spreadsheet, simply reply yes to Save, and then re-open the spreadsheet as you did on page 10.



The **Paste Function** menu screen will again appear. click on **OK**. The following menu will appear.

If the **Office Assistant** is **still on the screen** simply point to it and **click the RIGHT** mouse button. A pop-up **menu** will appear. Click-on **Hide**. This will put the Assistant away until we need it again



As you can see, in the area to the right of **Number 1**, the “Wizard” has “**guessed**” that you want to add the numbers in the range **C6 to C8**. Now that you are becoming proficient with Excel, we’ll try something special. Carefully, point to some “**plain**” part in the gray area above. **Click and hold down the left mouse button**, and **drag** the above SUM box “**away**” so that you can see your numbers in **C column cells**. When you have done this, release the mouse button. Now **click-on** the “**small box**” on the **right edge** of the **Number 1** area (see arrow above). It has a little **red arrow** in it.



The **above** window will **appear**. **Delete anything** that is in the window, and then, **highlight** cells **C6 to C8** in the spreadsheet (click-on C6, hold down the left mouse button, and drag until the three cells are high-lighted.). A “**marquee**” will begin to **flash** around the cells, indicating they are highlighted. The cell will appear as **above**. Now **click-on** the **small button** on the **right** of the cell (see arrow above). The **numbers** will **show** in the area to the **right** of Number 1. Now, click-on **OK**. You’ll see that the SUM formula [=SUM(C6:C8)] is in Cell C9.

## AutoSum METHOD

**3 Method (Windows):** The last three methods work in all spreadsheets. Since we add numbers more than any other operation in spreadsheets, Excel spreadsheet has an additional feature - **Auto Sum**. Move to cell **C9** **again** and tap the **delete** key to **erase** your last formula. Now **look** at the **upper area** of the **screen**, just below the menu bar, for a **3** (summation) symbol **button**. **Point to it and click with the left mouse button**. **WOW !! Automatic addition !!** Notice that the cells, you’d logically desire to add, have a **marquee** around them and that the **SUM** function is displayed in cell **C9**. You’ll need to **confirm** that this is the **correct** formula. So, **tap** the **Enter** key and the SUM function will now be set in cell **C9**. Any time you want to add using this method just drag **one more cell past the numbers you want to as for the total area** and click-on the **3** .



**This would be a good time to save your work.**

**PERIODICALLY SAVE AND REPLACE YOUR WORK IN CASE YOU LOOSE**

## POWER TO YOUR COMPUTER

Now move to cell **C17** and add the total Expenses in cells **C13 to C16** - using each of the four methods.

### SUBTRACTION

In cell **A19** type **Net Income**. Next, **adjust the width of column A**.

In cell **C19** we want to **subtract** the amount in for Expenses in cell **C17** from the amount for Income in cell **C9**. This can be accomplished by using either the **Type-In Method** or **Point Method**. Go ahead and do this. Don't forget to tap the Enter key to confirm your formula.

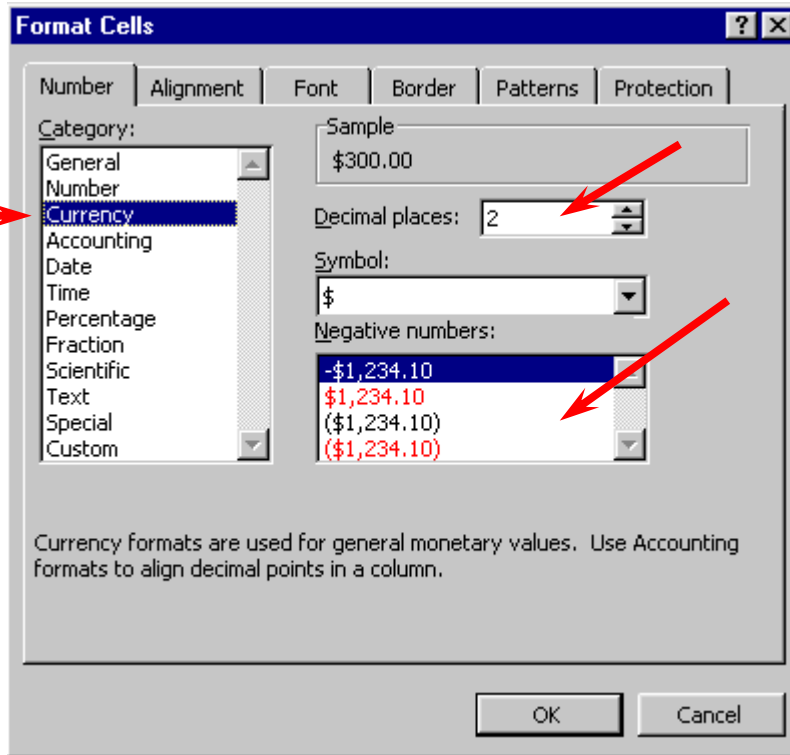
[The formula should look like =C9-C17]

### MORE CELL FORMATTING

We want our **numbers to look better**. To do this we'll include **dollar signs** and **decimal points** in our **numbers**. This is done by using the mouse. Point to cell **C6**, hold down the left mouse button and **drag** down slowly to high light cells **C6 through C19**. Your screen should look like the one **below**.

|    |            |               |     |
|----|------------|---------------|-----|
| 4  |            |               |     |
| 5  | Income     |               |     |
| 6  |            | Parents       | 300 |
| 7  |            | Job           | 50  |
| 8  |            | Investments   | 150 |
| 9  |            | Total         | 500 |
| 10 |            |               |     |
| 11 |            |               |     |
| 12 | Expenses   |               |     |
| 13 |            | Food          | 30  |
| 14 |            | Beverages     | 50  |
| 15 |            | Parties       | 150 |
| 16 |            | Miscellaneous | 70  |
| 17 |            | Total         | 300 |
| 18 |            |               |     |
| 19 | Net Income |               | 200 |
| 20 |            |               |     |

Now **point anywhere** in the **highlighted** area and click the **right** mouse button. A pop-up menu will appear. Click-on **Format Cells**.



Click-on the **Number** (this is what you want) “**Tab**” at the top of the window. Point to **Currency** and **click-on Currency**.

Notice **several things**. The **right side** shows the **number of decimal places**. The **2** is the default for cents. We'll use 2. **Notice above** the Decimal Places that there is a **sample** of what our **number will look like**. At the lower right it **shows how negative numbers can appear**, depending on **your choice**. When a negative number is calculated, it will appear with your choice. Now click-on **OK**. All the numbers now have \$. If you have large numbers that are **"too wide"** for the current column width you will see some **#####** in the cells where these numbers are located. If you need to, go ahead and **widen** the columns as you did previously.

|               |          |
|---------------|----------|
|               |          |
| Parents       | \$300.00 |
| Job           | \$50.00  |
| Investments   | \$150.00 |
| Total         | \$500.00 |
|               |          |
|               |          |
| Food          | \$30.00  |
| Beverages     | \$50.00  |
| Parties       | \$150.00 |
| Miscellaneous | \$70.00  |
| Total         | \$300.00 |
|               |          |
|               | \$200.00 |

Your spreadsheet numbers should now look like the one on the left.

## DIVISION and PERCENT

Now move to cell **A21** and type in the word **Percent**. We're going to calculate a fun percentage to show you how division works and give you some more practice with numbers.

Now move to cell **C21** and using either the **Type-In Method** or the **Point Method** divide ( / ) the amount for Income in cell **C9** by the amount for Expenses in cell **C17**. This will give you a horrid number so why not put a **percent symbol** with it. Now we'll **repeat** what we did **above**.

Point to **C21** and click the **right** mouse button. Point to **Format Cells**, **-then the Number tab** – **then click-on Percent**. **Select zero ( 0 ) Decimal Places**. **Click OK**. Ta Da !!! a %.

[The formula should look like =C9/C17]

## COPYING

We could repeat what we did to this point and fill in the Income and Expenses for each of the remaining columns. There is a **simpler way** to do this. **Assuming** our income and expense **amounts** are about the **same** throughout the months, we want to **copy** the **amounts** in **Column C** to **Columns D, E and F**. This will **require** two “steps.”

**Move** your cursor to cell **C6**. First, we'll **highlight** what we want to **copy**, next we'll tell the **spreadsheet** where we want to **place** what we've copied. So, point to **C6**, **hold down** the left mouse button and **drag** **down** the column until cells **C6** through **C21** are high-lighted. Your **highlighted area** should **look like** the one on the **right**.

|    | A          | B             | C            |
|----|------------|---------------|--------------|
| 1  |            |               | Janie's Budg |
| 2  |            |               |              |
| 3  |            |               | SEPT         |
| 4  |            |               |              |
| 5  | Income     |               |              |
| 6  |            | Parents       | \$300.00     |
| 7  |            | Job           | \$50.00      |
| 8  |            | Investments   | \$150.00     |
| 9  |            | Total         | \$500.00     |
| 10 |            |               |              |
| 11 |            |               |              |
| 12 | Expenses   |               |              |
| 13 |            | Food          | \$30.00      |
| 14 |            | Beverages     | \$50.00      |
| 15 |            | Parties       | \$150.00     |
| 16 |            | Miscellaneous | \$70.00      |
| 17 |            | Total         | \$300.00     |
| 18 |            |               |              |
| 19 | Net Income |               | \$200.00     |
| 20 |            |               |              |
| 21 | Percent    |               | 167%         |
| 22 |            |               |              |

Now, point to **Edit** in the top menu bar. Click the **left** button. Point to **Copy** in the menu that appears. Click the **left** button. The menu disappears.

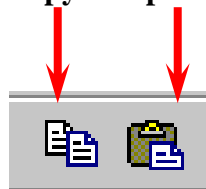
You will **notice** that once again, when you **highlight** an area, a **marquee** of running lights moves **around** the **copy area**. So, you'll know you highlighted the correct area. Now we'll tell the program **where to copy** the information. Point to cell **D6**, **click and hold down the left mouse button and drag down and to the right to cell F21** (This will **high light three columns** -- OCT, NOV, DEC -- to copy to.). When you have finished you're your highlighting, your screen should **look like** the one **below**.

|    | A          | B             | C              | D   | E   | F   |
|----|------------|---------------|----------------|-----|-----|-----|
| 1  |            |               | Janie's Budget |     |     |     |
| 2  |            |               |                |     |     |     |
| 3  |            |               | SEPT           | OCT | NOV | DEC |
| 4  |            |               |                |     |     |     |
| 5  | Income     |               |                |     |     |     |
| 6  |            | Parents       | \$300.00       |     |     |     |
| 7  |            | Job           | \$50.00        |     |     |     |
| 8  |            | Investments   | \$150.00       |     |     |     |
| 9  |            | Total         | \$500.00       |     |     |     |
| 10 |            |               |                |     |     |     |
| 11 |            |               |                |     |     |     |
| 12 | Expenses   |               |                |     |     |     |
| 13 |            | Food          | \$30.00        |     |     |     |
| 14 |            | Beverages     | \$50.00        |     |     |     |
| 15 |            | Parties       | \$150.00       |     |     |     |
| 16 |            | Miscellaneous | \$70.00        |     |     |     |
| 17 |            | Total         | \$300.00       |     |     |     |
| 18 |            |               |                |     |     |     |
| 19 | Net Income |               | \$200.00       |     |     |     |
| 20 |            |               |                |     |     |     |
| 21 | Percent    |               | 167%           |     |     |     |

Now point to **Edit** in the **Menu Bar** again and click the **left** button. Point to **Paste**. Click **left** button. **Wow !' All those numbers and dollar signs and formulas and EVERYTHING was copied in a flash !! That sure saved us a lot of time.**

**Click on a cell away from the area where the numbers are located. This will “turn-off” the highlight. Tap the Esc key and the marquee will also disappear.**

**Note: You can also utilize the copy and paste buttons in the button bar to do this if you desire.**



**Change a few numbers in each of the months in both the income and expense areas to see how the spreadsheet works. (This will be viewed in the graphs later.)**

**This would be a great time to Save again.**

Now for something to do on your own.

## Entering formulas in the Monthly Totals Column

Move to cell **G6** under the title Monthly Totals. **Choose one of the formulas you learned earlier to add each of the amounts in Parents for the four months. Use any of the four methods.** After you have completed your formula **copy** it to the cells **G7 to G19**. You will see some "stuff" in cells **G10, 11, 12, and 18**. This is because there was "nothing there" to add. So, go in and **clean-up** these cells by **deleting** the zeros in these cells.

Next, go to **G9 and G17** and **underline** like you've did before.

**Notice that we didn't copy the percentage formula** when we started this last copying effort. If we had copied a SUM formula, it would have added the four percentages. We don't want the sum of the percentages. We **want a percentage** of the Monthly Totals. So, we need to copy this percentage separately. Now, **copy the percentage formula in cell F21 to cell G21**. Now put a \$ in cells **G6 through G19** if you need to, and a % in **G21**.

**This would be a great time to Save again.**

## Absoluting

There are times when we are working with a spreadsheet that we **do not want** a cell to "**roll to the next column**" when we **use the copy** feature of the spreadsheet – like it did in our last copying exercise. To **stop the cells** from "rolling" we utilize something called **absoluting**. The following is an illustration of absoluting.

Go to cell **A23** and type-in **Number**. Go to cell **A25** and type-in **Result**.

Go to cell **C23** and type in a **2**.

We'll now **create a formula** to multiply our **number** times **Net Income**. You may use either the **Type-in** or **Point** method. Go to cell **C25**, and type in a formula to **multiply cell C23 times cell C19**.

The formula should look like: **=C23\*C19**

The result in **C25** should be **two times the net income in cell C19**.

Now **copy** the formula in cell **C25** to cells **D25, E25, F25 and G25**.

## Uh Oh!!! Where did all of those "0's" come from?

**Point** to each of the cells **D25, E25, F25 and G25**. Notice, as you click on each and look at the **top of the screen**, how **C23** (the cell with the 2) "**rolled**" and became **D23, E23, F23 and**

**G23 (which are blank** - and caused the "0's"). A **blank times** a number is a "0." **We want the 2 to be in each formula and not to "roll".**

To do this we utilize something called **Absoluting** or **Anchoring**.

Go back to cell **C25**. Now we'll **enter the formula again**, but a **little differently (to anchor the 2)**.

Type in a **=C23** (or you could type = and point to C23). **NOW, tap the F4 key**. Notice, in the **Edit bar** at the **top of the screen**, that the **=C23 changes to: \$C\$23**. (This tells you that cell **C23** is **absoluted** or anchored. The "\$'s" indicate the absoluting.) Now **finish the formula** by typing in or pointing **\*C17** as before. Tap **Enter**.

The formula should look like: **=\$C\$23\*C19**

Now **copy** the formula in cell **C25** to cells **D25, E25, F25 and G25** again.

The numbers should now be **correct**. Point to cells **D25, E25, F25 and G25** like you did before. You will notice the "\$'s" have **copied** the **=\$C\$23** to **each cell (absoluting)** and the Net Income figures have rolled as they should. Absoluting is something you should know and understand.

**Pause and reflect** -- Look at all you have accomplished. If you want go in and change some more numbers or change the income and expense titles to something you feel is more fun or appropriate.

**This would be a great time to Save again.**

The next important lesson to learn with Excel for Windows is how to **print**. This done with a few easy steps.

## **Printing**

First move to cell **A1**.

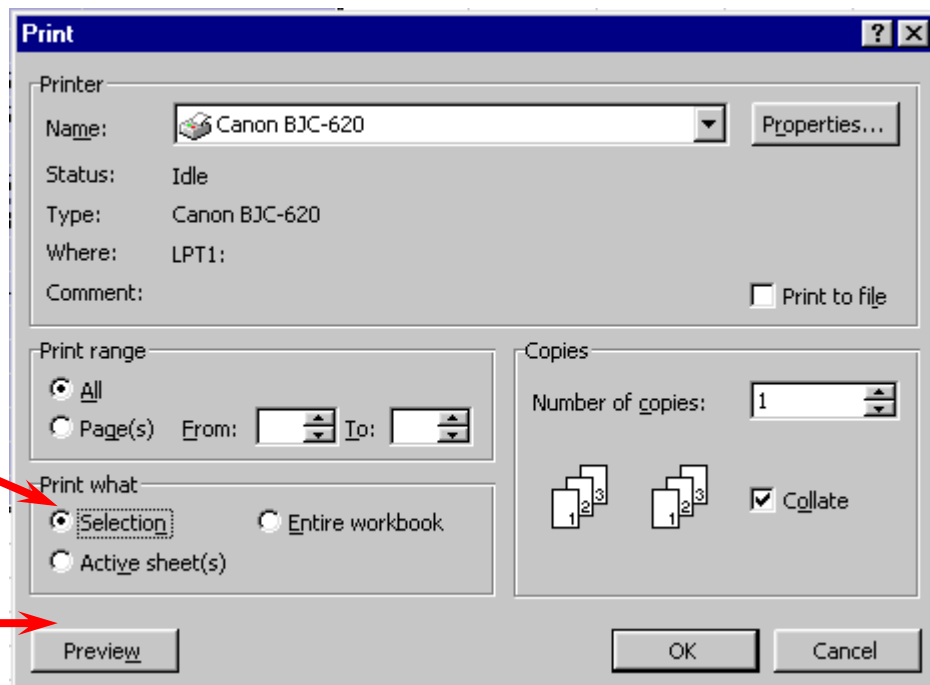
All of the Windows **spreadsheets try to figure out what you want to print**. Sometimes they're **right**, sometimes they're **wrong**. So.....

**The most important thing with printing is to tell the printer what to print.**

Unlike a word processor, you **may need to highlight** what you want to print. So, **point** to cell **A1**, **hold down** the **left mouse button** and **drag down** and **to the right** to cell **G25**. You've **highlighted the entire spreadsheet**. It should **look like** the image **below**.

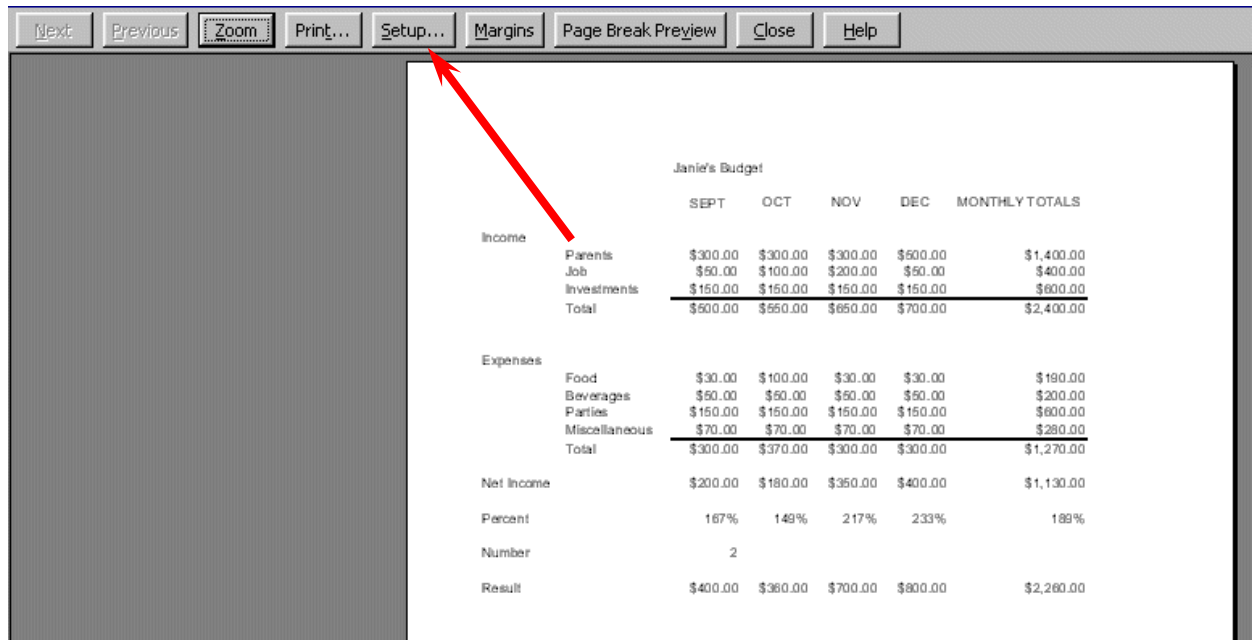
|    | A          | B             | C              | D        | E        | F        | G              |
|----|------------|---------------|----------------|----------|----------|----------|----------------|
| 1  |            |               | Janie's Budget |          |          |          |                |
| 2  |            |               |                |          |          |          |                |
| 3  |            |               | SEPT           | OCT      | NOV      | DEC      | MONTHLY TOTALS |
| 4  |            |               |                |          |          |          |                |
| 5  | Income     |               |                |          |          |          |                |
| 6  |            | Parents       | \$300.00       | \$300.00 | \$300.00 | \$500.00 | \$1,400.00     |
| 7  |            | Job           | \$50.00        | \$100.00 | \$200.00 | \$50.00  | \$400.00       |
| 8  |            | Investments   | \$150.00       | \$150.00 | \$150.00 | \$150.00 | \$600.00       |
| 9  |            | Total         | \$500.00       | \$550.00 | \$650.00 | \$700.00 | \$2,400.00     |
| 10 |            |               |                |          |          |          |                |
| 11 |            |               |                |          |          |          |                |
| 12 | Expenses   |               |                |          |          |          |                |
| 13 |            | Food          | \$30.00        | \$100.00 | \$30.00  | \$30.00  | \$190.00       |
| 14 |            | Beverages     | \$50.00        | \$50.00  | \$50.00  | \$50.00  | \$200.00       |
| 15 |            | Parties       | \$150.00       | \$150.00 | \$150.00 | \$150.00 | \$600.00       |
| 16 |            | Miscellaneous | \$70.00        | \$70.00  | \$70.00  | \$70.00  | \$280.00       |
| 17 |            | Total         | \$300.00       | \$370.00 | \$300.00 | \$300.00 | \$1,270.00     |
| 18 |            |               |                |          |          |          |                |
| 19 | Net Income |               | \$200.00       | \$180.00 | \$350.00 | \$400.00 | \$1,130.00     |
| 20 |            |               |                |          |          |          |                |
| 21 | Percent    |               | 167%           | 149%     | 217%     | 233%     | 189%           |
| 22 |            |               |                |          |          |          |                |
| 23 | Number     |               | 2              |          |          |          |                |
| 24 |            |               |                |          |          |          |                |
| 25 | Result     |               | \$400.00       | \$360.00 | \$700.00 | \$800.00 | \$2,260.00     |

Now click-on **File** in the Menu Bar and then click-on **Print** in the drop-down menu. The following window should appear:



If we're **really sure** of what we've done, then **Active sheet(s) is OK**. However, if you **make a mistake** somewhere in the spreadsheet, you might end up printing a lot of extra pages. Notice in the "box" that indicates **Print what** that there are three selections: **Selection, Active sheet(s), and Entire Workbook**. So, as indicated above, point to the "circle" in front of **Selection** and click the left mouse button.

It's usually a good idea to **see what our printout will look like**. So, point to **Preview**. Click the left button. A picture of what our printout will look like appears – similar to the one **below**.

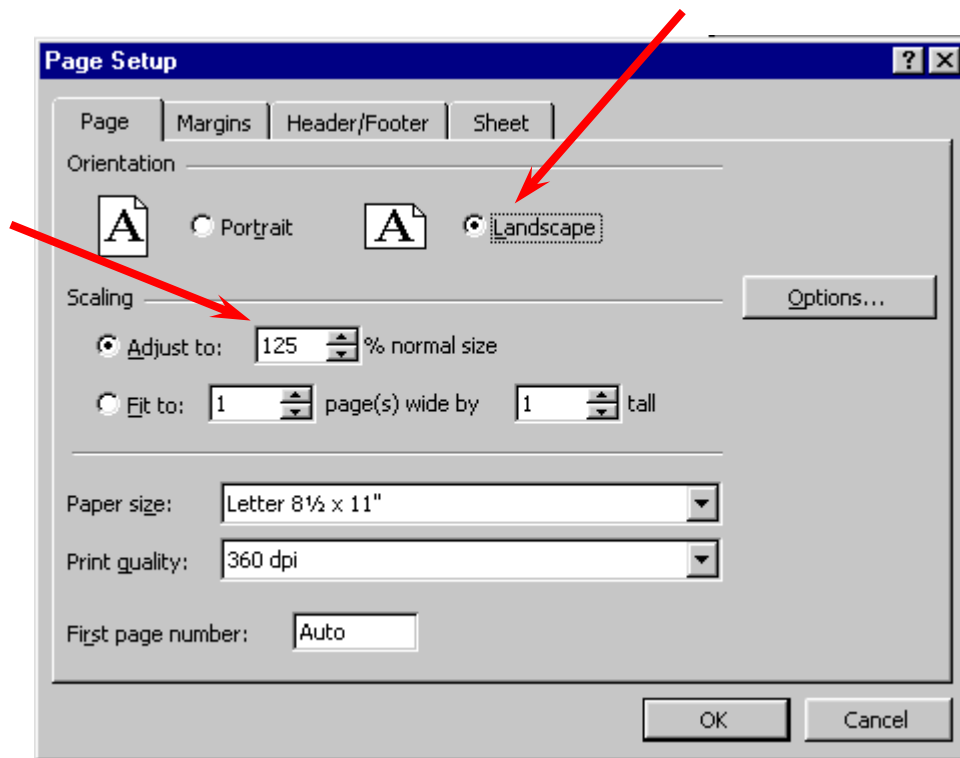


| Janie's Budget    |                 |                 |                 |                 |                   |
|-------------------|-----------------|-----------------|-----------------|-----------------|-------------------|
|                   | SEPT            | OCT             | NOV             | DEC             | MONTHLY TOTALS    |
| <b>Income</b>     |                 |                 |                 |                 |                   |
| Parents           | \$300.00        | \$300.00        | \$300.00        | \$500.00        | \$1,400.00        |
| Job               | \$50.00         | \$100.00        | \$200.00        | \$50.00         | \$400.00          |
| Investments       | \$150.00        | \$150.00        | \$150.00        | \$150.00        | \$600.00          |
| <b>Total</b>      | <b>\$600.00</b> | <b>\$550.00</b> | <b>\$650.00</b> | <b>\$700.00</b> | <b>\$2,400.00</b> |
| <b>Expenses</b>   |                 |                 |                 |                 |                   |
| Food              | \$30.00         | \$100.00        | \$30.00         | \$30.00         | \$190.00          |
| Beverages         | \$50.00         | \$50.00         | \$50.00         | \$50.00         | \$200.00          |
| Parties           | \$150.00        | \$150.00        | \$150.00        | \$150.00        | \$600.00          |
| Miscellaneous     | \$70.00         | \$70.00         | \$70.00         | \$70.00         | \$280.00          |
| <b>Total</b>      | <b>\$300.00</b> | <b>\$370.00</b> | <b>\$300.00</b> | <b>\$300.00</b> | <b>\$1,270.00</b> |
| <b>Net Income</b> | <b>\$200.00</b> | <b>\$180.00</b> | <b>\$350.00</b> | <b>\$400.00</b> | <b>\$1,130.00</b> |
| <b>Percent</b>    | <b>167%</b>     | <b>149%</b>     | <b>217%</b>     | <b>233%</b>     | <b>189%</b>       |
| <b>Number</b>     | <b>2</b>        |                 |                 |                 |                   |
| <b>Result</b>     | <b>\$400.00</b> | <b>\$360.00</b> | <b>\$700.00</b> | <b>\$800.00</b> | <b>\$2,260.00</b> |

First notice that an "image" of your spreadsheet appears. In the top left corner of the screen you will see the words **Next** and **Previous**. In this case they are not active. If our spreadsheet had been **larger than one page**, then you would see these "activated" and a "page count" would appear at the bottom left of your screen. So, this spreadsheet will print on one page in "portrait". Go ahead and click-on **Print**. When the printer completes the print, label this printout "portrait default".

When you click Print, your **Preview** screen will **disappear**. To **continue** with printing, **repeat the instructions for printing on the last page** again – **File – Print – click in Selection circle – Preview**. Your screen above should appear again.

Now click-on **Setup** in the top button Bar (see **arrow above**).



Notice that the **Page Setup** screen **indicates** that you are in **Portrait** view. Now we'll **enhance** the spreadsheet to make it a bit more presentable. In the **Orientation** area **click-in** the **small circle** in front of **Landscape**. The spreadsheet will now print on the page as indicated. Next, in the **Scaling** area, **click-in** the **box to the left of % normal size**. With either the “**up/down**” **triangles**, or by **typing** in the information, change the size to **125**. Then **click-on** **OK**. Your spreadsheet will now be larger and fill the paper more appropriately. **Click-on** **Print** and when this spreadsheet comes out of the printer label it: “**landscape – enlarged to 125 %**”. Go ahead and **adjust** the “**size**” of your spreadsheet so that it becomes **too large** to fit on a single page. Set the **Scaling** to **200** and **click-on** **OK**. When you return to the Preview screen, the **Next** and **Previous** buttons at the top will now be **active**, and you'll see **1 of 3 or 4 pages** in the **lower left corner** of the screen. Then **click-in** the **small circle** to the **left of Fit 1 page(s) wide by 1 tall** in the **Scaling** area and make sure that **1 page** is set. Excel will now **return** your spreadsheet to **one** page. Try other things here. Work with margins, etc. Any time you desire to print, go ahead and do so. This will give you a feel for how the spreadsheets will print. When you are finished, simply **click-on** **Close** and you will return to your spreadsheet.

Now we'll call it a day and get out of Excel for Windows. First, let's **save** our work one more time. If you **forget**, Excel will **remind** you **to do it**. What a nice program!!

Point to the **Edit** menu and click the left button. Point to **Exit**. Click the left button. That's it for now.

When you return, we'll retrieve our work and do some really neat graphics. To open your spreadsheet again follow the instructions on pages 10 and 11.

## GRAPHICS

This will be a lot of **fun**. We are now going to turn your spreadsheet numbers into graphics -- bar charts, pie charts, etc. This will greatly assist you when you display and explain your work.

**Before** we do this there are a couple of **essential steps**. First we have to **tell** the "Wizard" **what we want to chart** and then **were** we want the chart to go.

First: in cell **B9** type *in* **Income** (to replace the word Total). Next type in **Expenses in B17** for the same reason.

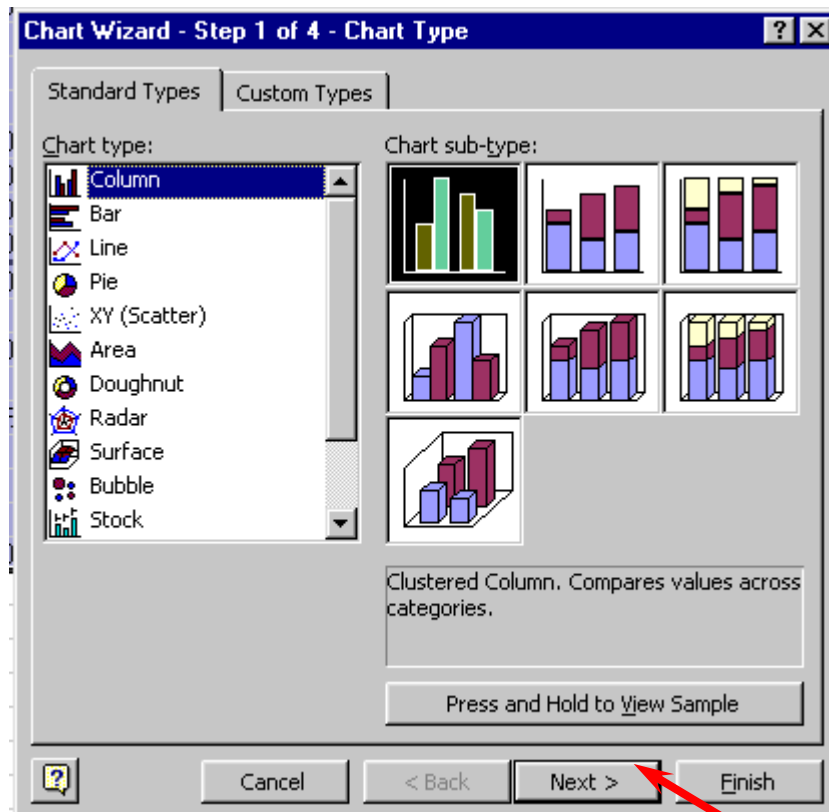
### VERY IMPORTANT.....

Now....Something New.... Hold down the left mouse button and **highlight cells B3 to F3**. Next **HOLD DOWN** the **Ctrl** key at the **bottom of the keyboard**, and **while you are holding it down, highlight B9 through F9**. You will now see two "ranges" highlighted. **Hold down the Ctrl again, and highlight B17 through F17**. These three ranges will make up your chart. The x-axis will be made up of B4 - F4. And, the two sets of bars (series) will make-up the Income and Expense. When you complete the above instructions, your screen should look like the one below.

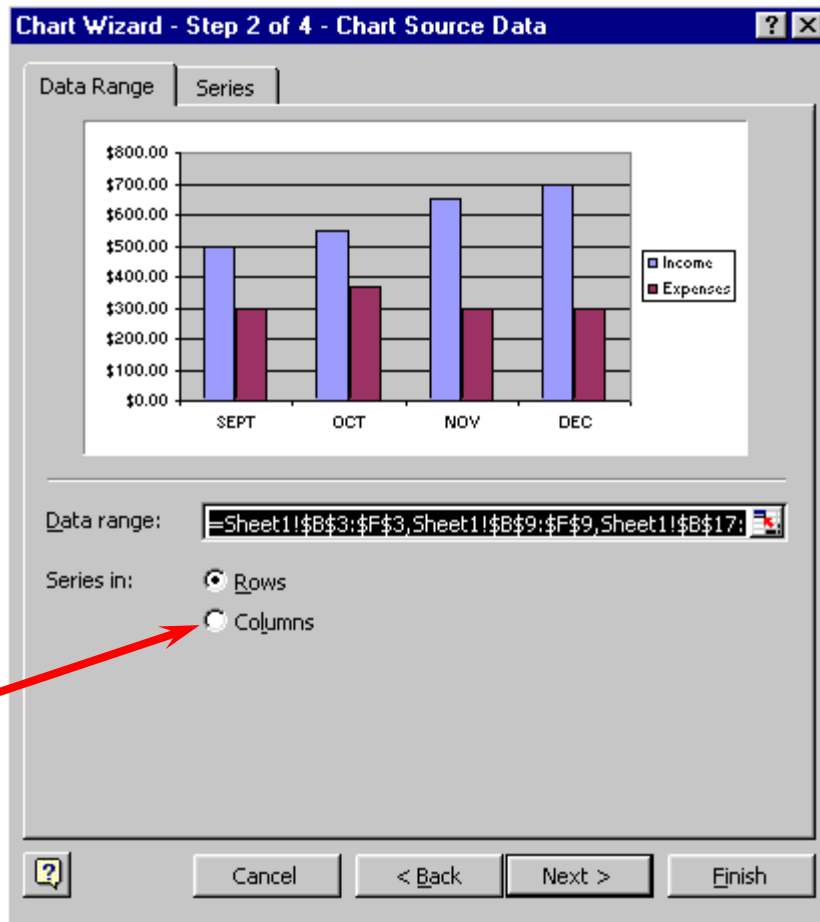
|    | A        | B             | C              | D        | E        | F        |       |
|----|----------|---------------|----------------|----------|----------|----------|-------|
| 1  |          |               | Janie's Budget |          |          |          |       |
| 2  |          |               |                |          |          |          |       |
| 3  |          |               | SEPT           | OCT      | NOV      | DEC      | MONTI |
| 4  |          |               |                |          |          |          |       |
| 5  | Income   |               |                |          |          |          |       |
| 6  |          | Parents       | \$300.00       | \$300.00 | \$300.00 | \$500.00 |       |
| 7  |          | Job           | \$50.00        | \$100.00 | \$200.00 | \$50.00  |       |
| 8  |          | Investments   | \$150.00       | \$150.00 | \$150.00 | \$150.00 |       |
| 9  |          | Income        | \$500.00       | \$550.00 | \$650.00 | \$700.00 |       |
| 10 |          |               |                |          |          |          |       |
| 11 |          |               |                |          |          |          |       |
| 12 | Expenses |               |                |          |          |          |       |
| 13 |          | Food          | \$30.00        | \$100.00 | \$30.00  | \$30.00  |       |
| 14 |          | Beverages     | \$50.00        | \$50.00  | \$50.00  | \$50.00  |       |
| 15 |          | Parties       | \$150.00       | \$150.00 | \$150.00 | \$150.00 |       |
| 16 |          | Miscellaneous | \$70.00        | \$70.00  | \$70.00  | \$70.00  |       |
| 17 |          | Expenses      | \$300.00       | \$370.00 | \$300.00 | \$300.00 |       |
| 18 |          |               |                |          |          |          |       |

We'll use the **easiest method** for our first chart (graph).

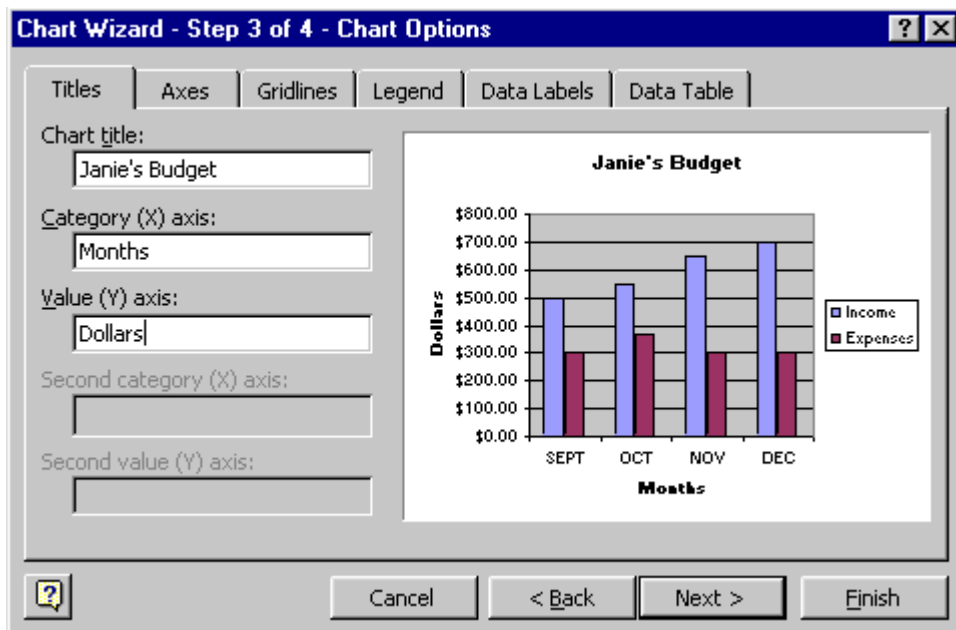
In the **Menu Bar** click-on to **Insert**, then in the menu that appears, click on **Chart**. The following window appears.



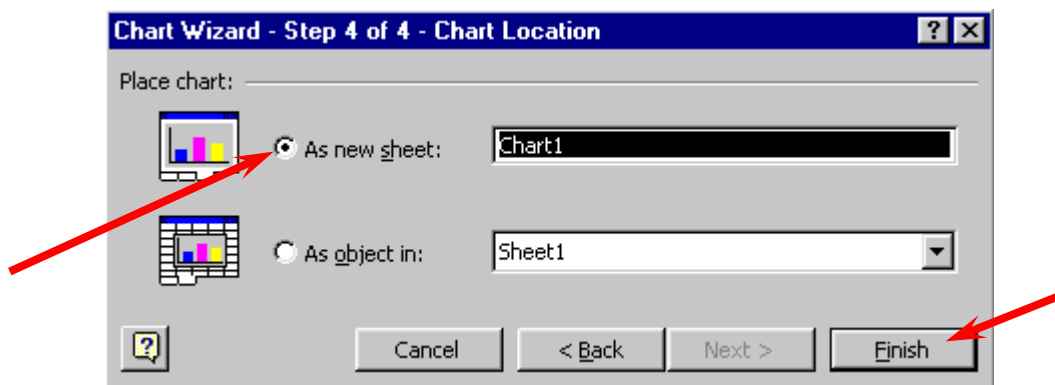
**Chart Wizard now appears.** The various types of charts show in **Chart type:** on the **left**. **Examples** of the selected chart type show on the **right** under **Chart sub-type**. We'll stay with **Column** and the chart selected for now. Click on **Next**.



Wizard now shows you **what your chart will look like**. The “**ranges**” you selected originally are **shown** in the **Data range:** area. **If you did not highlight as indicated, your chart won’t “look right.”** Your chart should look like the example above. If you click-on the Series tab at the top of the Wizard screen, you’ll see a new Wizard screen that shows you where the Income and Expenses series came from. Click-back on the Data range tab at the top. Now **click**-in the **little circle** in front of **Columns**. The Wizard will indicate that the chart has been “rotated” 90 degrees and thus the axis has changed. **Click**-back in the **small circle** in front of **Rows**. Click **Next** again.



Now the final step: **Titles**. **Click-in the blank area under Chart Title**. A flashing cursor will appear. **Type in your name with an apostrophe (') s and the word Budget (ex. Janie's Budget)**. Now, **click-in the area under Category (X) axis:** and type in **Months**. Next, **click-in the area under Value (Y) axis:** and type in **Dollars**. You probably noticed that as you entered these titles, the chart in the area on the right of the Wizard changed to give you an “instant” view of your final chart. You will also notice that there are several **tabs** at the **top** of the Wizard. **Click-on each of the tabs** and **see** what “they do”. Notice how some change axis and put in grid lines. The **legend** is the **small box on the right**, which **indicates** what the **colors** of the “bars” - click-on **Next** one last time.



This is the final Wizard. You’ll notice that it asks you **where** you want to **put** your **chart**. Since this is your first chart, it is best if you select **As a new sheet:** (see **arrow above**). This will put your chart on a **new tab** called **Chart 1**. Now click-on **Finish**, You’ll see that you chart has a tab of its own at the bottom of the screen, and “fills” an entire screen.

**WOW!!!!** There's your chart. Again, notice that Excel created a **new tab** at the bottom of the spreadsheet that says **Chart 1**. Any time the numbers change on the Sheet 1, the bars in the chart will reflect the change automatically. **Click** on the **Sheet 1** and **Chart 1** tabs to get the feel of going back and forth between the data and the chart. After you make your changes, click on the **Chart 1** Tab and you'll see how the chart has changed.

**Now it would be a good time to Save again.**

In **Excel** when you save your **spreadsheet** you also save your **graph**. Your graph is saved wherever you are working.

**Note:** We are about to do some things which could **mess-up** your graph. **If you do get "messed-up"** in the graph - **don't save again**. Simply **Close** the worksheet and **DON'T SAVE**. **Open** the worksheet again and you will be in a nice neat graph where you can experiment some more.

Let's really get "**Snazzzyy**".

**Click on the Chart 1 tab.**

**Click-once on your title** at the top. A "box" with **little squares** on the corners will appear. These are "sizing grabbers". When you move the cursor over them you will notice that the cursor changes to small, directional arrows. If you click, hold down the left mouse button, and drag when you see these arrows, you will notice that the Title Box gets larger or smaller as you drag. Next, **click-on** the **name of your budget** until you get a **flashing cursor** somewhere in the title. With the **arrow movement keys**, or **mouse**, **move** to the **end of the title**, to the right of the "t" in Budget, and tap **Enter**. Type in **Fall 2001**. Now **click** at the beginning of your name, hold down the left mouse button, and drag to **highlight the first line of the budget title with your name in it**. Keeping the cursor on the dark area, click the **right mouse button**. Click on **Format Chart Title**. **Change** the **Font** to **Times New Roman** (by moving up and down with the arrows). As you change things you will see the results in Preview on the lower right. Change the **size to 28**. Change the **color** if you want. Click **OK**.

Click-on the **upper right hand corner of your gray graph area**. You will see **little squares** now appear at the four corners and sides of the graph area. Point to the **upper right corner square** and move the cursor until you see an **arrow with two heads**  $\leftrightarrow$ . Hold down the left mouse button and **drag down and to the left** then let go. Your graph will get **smaller**. Now point somewhere in an **open gray area** of the graph (not on one of the bars) and click again. Hold down the left mouse button and **drag** the graph area so it looks more "appropriate". Click-on the **Legend** on the right. Then **click right** in the **Legend area**. Click **Format Legend**. Click on **Placement**. Click in the white circle to the left of **Bottom**. **OK**. Now, doing the same thing you did with the graph, make the **legend larger** and make the **Income and Expense fonts larger**.

Now let's look at your graph and then print it. Go to **File - Print Preview**. If you like what you

see go ahead and **print** the graph. If not, close Preview and make some more graph changes.

Whenever your **graph** is **visible**, you can **point** to **any area** of the graph, and **click** the **right mouse button** on the area, and **edit** that particular area. You can also **click-right** in the chart itself. In the menu that appears, click-on **chart type** and then change to a different type of chart.