

Microsoft Excel 2000 Step By Step

Module 1

Textbook Sample

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Concepts and Skills – Session 2

At the end of Session 2, you should understand these concepts:

- Order of Operations
- The Windows Clipboard
- Relative cell addressing
- Absolute cell addressing

At the end of Session 2, you should be able to perform these tasks:

- Delete unwanted cell data
- Undo a deletion
- Overwrite cell data
- Copy and paste cell data
- Edit an existing formula
- Change the format of values
- Center data across several columns
- Color cell text and the cell background
- Automatically adjust the width of columns
- Copy formulas containing cell references

Order Of Operations

If someone asked you to solve the problem:

$$3+4*2$$

What would your answer be? That depends on whether you perform the *addition* first or the *multiplication* first. If you **add** first, the answer is **14**:

$$3 + 4 = 7$$

$$7 * 2 = 14$$

If you **multiply** first, the answer is **11**:

$$4 * 2 = 8$$

$$3 + 8 = 11$$

Back in junior high school, you learned a principle that all mathematicians use in just such a situation. The rule, called **Order of Operations**, states that if a math problem contains multiple operators (+, -, *, /, ^), the problem must be broken down into individual calculations. The order in which these calculations are carried out is:

- First, all operations enclosed in parentheses are computed.
- Second, all exponents are computed.
- Third, all multiplications and divisions are computed.
- Forth, all additions and subtractions are computed.

1. Make sure Excel is loaded, and that the *cell pointer* is in A1
2. Type:

$$=3+4*2$$

Before pressing **Enter**, can you calculate the correct answer, based on the **Order of Operations** rule?

3. Press **Enter**

Excel should display **11** in cell A1. To arrive at the answer, Excel first multiplied **4** by **2**, then added the result (**8**) to **3** to produce the final answer.

4. In cell A2, type:

$=(3+4)*2$

5. Press **Enter**

This time, Excel computes the portion within the parentheses first (3+4), then multiplies the result (7) by 2, producing **14**.

Deleting Cell Data

How difficult is it to delete cell data? Not difficult at all!

1. Move the cell pointer to A1
2. Press the Delete key on your keyboard

The contents of A1 should disappear.

Undoing a Deletion

If you ever delete the contents of a cell or cells by mistake, you can restore the data using the **Undo** function. Let's get the contents of cell A1 back using **Undo**.

1. While holding down the Ctrl key on your keyboard, press:

Z

The **11** should re-appear in A1. The Ctrl Z key combination invokes **Undo**.

You can also delete a *range* of cells at once.

2. While holding down the Shift key, press the down cursor arrow key once

Cells A1 and A2 should be highlighted.

3. Press the Delete key on your keyboard

The contents of both cells should disappear.

Overwriting Cell Data

If you wish to change the contents of a cell, you don't have to erase it; you can simply overwrite it with the new data.

1. Click in cell D1 to move the cell pointer there
2. Type:

Old Data

3. Press **Enter**
4. Move the cell pointer back into D1
5. Type:

New Data

6. Press **Enter**

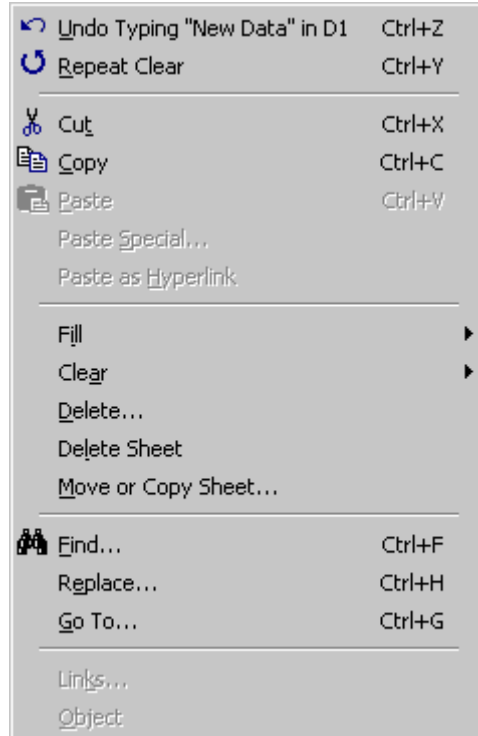
Copying Cell Data

As you build a spreadsheet, it often becomes necessary to copy the contents of a cell or cells into other cells. Excel provides several methods for doing so.

To demonstrate, we'll first copy the contents of cell D1 into cell D2.

1. Move the cell pointer to D1
2. Click on **Edit** on the menu bar

The **Edit** menu should open to reveal these options:



To the left of the **Copy** command you see an icon that looks like two overlapping sheets of paper. This tells you that a button displaying this icon is available on the toolbar as an alternate method of invoking the Copy command.

To the right of the **Copy** command you see:

Ctrl+C

This tells you that the Copy command can also be invoked by holding down the Ctrl key and pressing C.

3. Click on **Copy**

The **Edit** menu should disappear. Notice that the frame around cell D1 now appears to be flashing. This is known as a *marquee*. It indicates that the selected cell is about to be copied. At the very bottom of the screen, you should see this message:

Select destination and press ENTER or choose Paste

4. Press the down cursor arrow key once to move the cell pointer to D2

5. Click on **Edit** on the menu bar
6. Click on **Paste**

The contents of cell D1 (New Data) should now appear in cell D2.

Notice that the flashing marquee still appears around cell D1. This tells you that the data is still captured in the *Windows Clipboard*

The Clipboard

When you used the **Copy** command to copy the contents of cell D1, the value was stored in a memory location called the **Clipboard**. The **Clipboard** is a storage buffer that is common to all Windows applications. When you copy data to it (either text or a graphic image), the data remains there until one of these occur:

- You exit Windows
- You copy a new item to the Clipboard
- You press the Esc key on your keyboard

If none of these occur, the data remains in the Clipboard. This means that you can copy data to the Clipboard, exit Excel, load another application (such as Word For Windows), and paste the data there. This makes it very easy to export data from one application to another. In our example, we're simply exporting data from one *cell* to another.

1. Move down to cell D3
2. Click on **Edit** on the menu bar
3. Click on **Paste**

A copy of the data should now appear in cell D3. The marquee should still be displayed around cell D1.

Copying the Contents of a Cell to Multiple Cells

As you will learn as you work through this course, it is often necessary to copy the contents of one cell into *multiple* cells. To demonstrate how this is done, let's copy the contents of cell D1 into the range D8:D15.

Since the contents of cell D1 are still stored in the Clipboard, we do not need to perform another **Copy** operation; we can immediately *paste* the data into the range D8:D15.

1. Move the mouse pointer (the white cross) inside cell D8
2. Hold down the left mouse button
3. Drag the mouse down until the pointer is in cell D15
4. Release the mouse button

(If you accidentally select the wrong range, simply repeat steps 1 - 4).

1. Click on **Edit** on the menu bar
2. Click on **Paste**

The data should now be copied into D8:D15. Since the text is still in the Clipboard, you could continue to select other ranges and paste it into them.

3. Press the Esc key

The marquee should disappear from around cell D1. This tells you that the data is no longer stored in the Clipboard. You don't have to do this before capturing new data; normally, the current contents of the Clipboard are automatically replaced when you capture a new piece of data.