Lesson 9 Modifying a Workbook

Lesson Topics

- Inserting Rows and Columns
- Deleting Rows and Columns
- Inserting and Deleting Cells

Lesson Objectives

At the end of the lesson, you will be able to:

- Insert and delete rows and columns using the menu commands, the Insert dialog box, and the Delete dialog box;
- Explain the need for caution when inserting and deleting rows above or below a selection;
- Use the Insert dialog box or the Delete dialog box to insert and delete cells.

Student Files Used

You will use the following files from your student folder:

- Miller's Shoes 4
- Student Report

Student Files Created

You will not save any new files to your student folder.

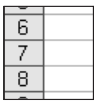
Inserting Rows and Columns

Rows and columns can be inserted with the *Insert* command and deleted with the *Delete* command.

Inserting Rows

When inserting rows, select the rows that will follow the new ones. You are going to use the *Miller's Shoes 4* workbook for this lesson.

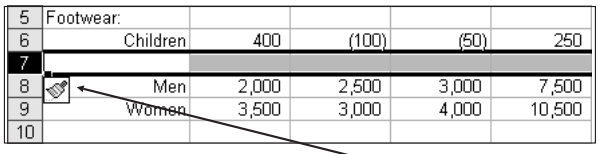
1. **Open** *Miller's Shoes 4*.
2. **Click the row 7 heading to select all of row 7.**



   This row will follow the new row.

3. **On the Insert menu, choose** *Rows*.

   One blank row is inserted above the *Men* row. Your screen should look like the following:



   Note: You can ignore for now the Smart Tag that appears. It will be explained shortly.

4. Excel automatically makes adjustments to a range when you add or delete rows and columns.

   Go to B11, C11, and D11 and notice on the Formula bar that the range of these formulas now includes rows 6 - 10. Previously it consisted of rows 6 - 9.

   Note: The blank row above the total has been included in the formulas because the AutoSum button was used to enter the formulas.

5. **Go to some cells in rows 17 - 20 and notice that the range has expanded to rows 6 - 9. Previously it was rows 6 - 8.**

   Notice that the blank row is not included in these formulas. This is because the AutoSum button was not used to enter them.

6. **Go to A7.**
7. **Type:** Infant

8. **Tap the TAB key or the RIGHT ARROW key to go to B7.**

   Notice that *Infant* is right-aligned because that is the format of the cell above it.

9. **In B7, type** 600 **and tap the TAB key.**

   Notice the results change in the respective cells with formulas.

10. **In C7, type** 650 **and tap the TAB key.**

11. **In D7, type** 700 **and tap the ENTER key.**

    Notice the changed values.

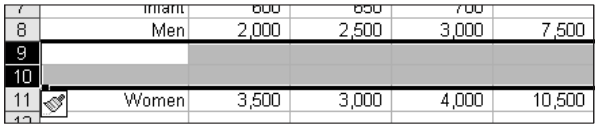
You are going to insert two rows above row 9.

1. **Use the row headings to select rows 9 and 10.**

   Two rows are selected, which tells Excel to insert two rows above this range.

2. **On the Insert menu, choose** *Rows*.

   Two rows are inserted. Notice that the active cell is A9. This is helpful, because you often want to enter information into the new row immediately after inserting it.



7	Infant	600	650	700	
8	Men	2,000	2,500	3,000	7,500
9					
10					
11	Women	3,500	3,000	4,000	10,500

3. **Type the following text and values into the new cells (there is no need to type the commas):**

9	Slippers	700	800	900
10	Hosiery	4,000	5,000	6,000

   Notice that the text in A9 and A10 is right-aligned because that is the format of the highlighted cells above. Similarly, the values have the same format as those in the cells below.

4. **Go to a few cells containing formulas and notice that the range has been extended.**

You do not have to select entire rows before inserting. You need only select one cell in each row. You are going to insert three rows above *Infant*.

1. **Select C7:C9.**

   One cell in three rows are highlighted, which tells Excel to insert three rows above this range.

2. **On the Insert menu, choose *Rows*.**

   Notice the three new rows.

3. **Type the following text and values into the new cells and watch the totals and profits change accordingly.**

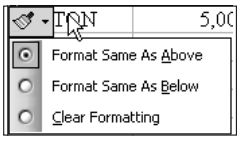
7	Sandals	150	50	100
8	Socks	2,000	2,250	2,700
9	Boots	1,300	1,400	1,500

4. **Go to a few cells containing formulas and notice that the range has been extended.**

5. **Go to E6 and, using the Fill handle, copy the formula to E7:E13.**

Smart Tags

The small icon that appears when you insert new rows into the worksheet is called a *smart tag*. Smart tags let you choose options related to procedures. When you click a smart tag, a menu of options appears. The moment you continue working, the smart tag disappears.



When you are inserting rows, the options on the smart tag let you decide whether you want to apply the formats to the new cells from the row above, or below. Most of the time you will probably want the default — the format of the row above.

A Word of Caution

Be careful when inserting a row above or below a range indicated in a formula, because the row will not be included in the formula. Excel, however, will let you correct this. You are going to insert a row above the *Children* row and notice that the values are not included in the calculations.

1. **Click in any cell of row 6.**

2. **On the Insert menu, choose *Rows* to insert a row above.**

3. **Go to several cells with formulas and notice that the first row in the range is now row 7 – not row 6.**

   Since the range begins with row 7, none of the values typed into row 6 will be included in the calculations.

4. **Go to B6.**

5. **Type:** 1000

6. Look at the value on the *Total* row. It is not going to change.

   Tap the ENTER key.

   Notice that the value on the *Total* row did not change. Green triangles appeared next to some cells, however. You will learn more about these shortly.

You are going to insert a row above the *Total* row.

1. **Click the *Total* row heading (row 17) to select the row or any cell in row 17.**

2. **On the Insert menu, choose *Rows*.**

3. **Go to several cells with formulas and notice that the last row in the range is still row 16 – not row 17.**

   Since the range ends with row 16, values entered in row 17 would not be included in the calculations.

4. **Go to B17.**

5. **Type:** 1000

6. Look at the value in the *Total* row. It is not going to change.

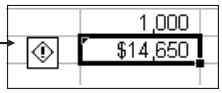
   Tap the ENTER key.

   Notice that the value in the *Total* row did not change.

The green triangles that appeared next to the results in B18 and B24:B27 indicate that the cells contain formulas that Excel thinks may have an error.

1. **Click in B18.**

   Notice the small box with an exclamation point. This indicates that Excel detects an error in the formula.



2. **Point, but do not click, to the box with an exclamation point.**

   Notice the message: *The formula in this cell refers to a range that has additional numbers adjacent to it.*

3. **Click the small box.**

   In the menu that appears, Excel tells you the problem: *Formula Omits Adjacent Cells*.

4. **In the menu, choose *Update Formula to Include Cells*.**

   The formula is updated, and its range, as shown on the Formula bar, is now B6:B17. Only this formula was updated, however.

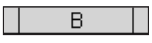
   Note: To update the rest of the formulas, you would have to repeat these steps for each one. The procedure can be inconsistent, however, especially in non-adjacent cells. For adjacent cells you could copy it to the right with the Fill handle. In cases like this, it may be faster to insert a new row below the first one, cut the information in the top row (see *Cutting and Pasting* in the next lesson), and then paste it in the new blank row. The new top row will then be blank, but still included in the formulas. You can then type information into this new blank row.

Inserting Columns

The same procedures that apply when inserting rows apply when inserting columns. When inserting a column, select the column that will follow the new column and then choose *Insert/Columns*.

1. You are going to insert a column before column B.

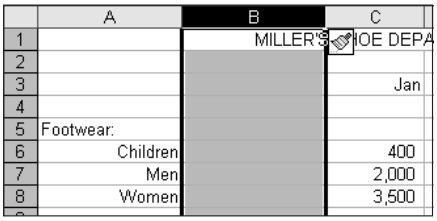
   Click the column B heading to select the entire column.



   The new column will come before this column (it will be inserted to the left of the selected column).

2. **On the Insert menu, choose *Columns*.**

One empty column is inserted. It takes the width and the formats of the column before it. Notice that the title, *MILLER'S SHOE DEPARTMENT*, is centered between columns A and F, rather than A and E as before.



3. You are going to insert two columns. As with inserting rows, you can merely select a cell in each column to follow the insert. You do not have to select entire columns.

   Select A31:B31 or any two cells in columns A and B.

4. **On the Insert menu, choose** *Columns***.**

   Two columns have been inserted before column A. Because there was no column before these columns, they have each taken on the Standard Width (8.43). If you click the Smart tag, however, you can choose *Format Same as Right* and the width of the new columns will be the same as that to the right of them.

Deleting Rows and Columns

The *Delete* command lets you delete rows and columns. Do not confuse the command with the *Clear* command (whose keyboard equivalent is the DELETE key), which lets you delete the contents of cells.

When inserting rows and columns, avoid merely selecting cells in the rows or columns to be deleted. If you do, the Delete dialog box (covered shortly) will appear to help you and it requires an extra step. Therefore, it is usually easiest to delete rows and columns by selecting their headings.

1. You are going to delete one row.

   Click the row 6 heading to select row 6.

2. **On the Edit menu, choose** *Delete***.**

   The row is deleted and those beneath it move up.

3. You are going to delete two adjacent rows.

Select the row 17 and 18 headers.

4. **On the Edit menu, choose *Delete*.**

   The two adjacent rows are deleted and those beneath them move up.

   Note: As with inserting rows, be careful about deleting columns that are referenced in formulas. For example, if C4 contained the formula *=SUM(B6:B8)/A20* and you were to delete A20, the message *#DIV/0!* would appear in C4. This indicates that the formula can't be solved because A20 is empty.

You are going to delete the new A and B columns.

1. **Drag through the column A and B headings to select the entire columns.**

2. **Choose *Delete* on the Edit menu.**

   Both columns are deleted.

3. You are going to delete the new column B.

   Click the column B heading.

4. **On the Edit menu or shortcut menu, choose *Delete*.**

   The column is deleted.

   Note: You may have noticed that when cells are selected, the *Delete* command on the Edit menu has an ellipsis (...) following it, indicating that a dialog box will appear — in this case, the Delete dialog box — which requires you to select an option to finish the procedure. When a row or column heading is selected, there is no ellipsis, and you save yourself a step.

Summary

These are the major points to keep in mind when inserting rows and columns:

- Rows and columns are inserted either by clicking a row or column heading or by selecting at least one cell and then choosing *Rows* or *Columns* on the Insert menu.

- Rows and columns are deleted by selecting a row or column heading and then choosing *Delete* on the Edit menu.
- Avoid deleting rows and columns by selecting one or more cells and choosing *Delete* on the Edit menu. If you do, the Delete dialog box will appear, and you have created an extra step for yourself.
- Be careful about inserting and deleting rows and columns at the extreme edges of a range that is referenced in a formula. The new rows and columns might not be included in the formula.

Inserting and Deleting Cells

Sometimes it is necessary to insert and delete specific cells, not entire rows or columns. The Insert and Delete dialog boxes let you do this. You are going to do this with a workbook named *Student Report*.

1. **Open** *Student Report*.

   Notice that the workbook contains two alphabetical lists of students. The one on the left contains *Undergrads* and the one the right, *Grads*.

2. Imagine that *Edgar* has dropped out and has to be removed from the list. If you delete all of row 7, *Joan* will also be deleted. If you use the *Clear* command to remove the contents of A7 and B7, there will be two empty cells in the middle of the list. You want to delete only cells A7 and B7 and have the cells below them move up to fill the gap.

   Select A7:B7.

3. **On the Edit menu, choose** *Delete*.

   The Delete dialog box appears. Notice that you can shift cells left or shift cells up.

4. **Verify that** *Shift cells up* **is selected.**

5. **Click OK.**

Notice that the two cells were deleted and the cells below them moved up to fill in the gap.

5	Claire	89		Christina	95
6	Denise	98		George	88
7	Elisa	94		Joan	62
8	Margaret	86		Katherine	87
9	Michael	66		Kerwin	67
10	Sam	59		Paula	74
11	Wayne	69		Ralph	60
12				Tom	72

You are now going to insert two cells. A student named *Nancy* is to be added to the undergrad list above *Margaret*.

1. **Select A8:B8.**
2. **On the Insert menu, choose** *Cells*.

   The Insert dialog box appears. Notice that you can shift cells right and down.

3. **Verify that** *Shift cells down* **is chosen.**
4. **Click OK.**

   Notice the two empty cells that were inserted. Cells below it were moved down.

5	Claire	89		Christina	95
6	Denise	98		George	88
7	Elisa	94		Joan	62
8				Katherine	87
9	Margaret	86		Kerwin	67
10	Michael	66		Paula	74
11	Sam	59		Ralph	60
12	Wayne	69		Tom	72

   Note: The Smart tag is the same one that appears when you insert rows — its options are *Format Same as Above* (the default), *Format Same as Below*, or *Clear Formatting*.

5. **In A8, enter:** Nancy
6. **In B8, enter:** 92

Shortcut Menus

Excel's *Shortcut menus* provide you with quick access to common editing commands. You can display a Shortcut menu by right-clicking. Always be aware that Shortcut menus are context-sensitive, which means that they change depending on where you click, and depending on what action you are performing.

You are going to see the *Insert*, *Delete,* and *Clear Contents* commands on the Shortcut menu.

1. **Select a small range of cells.**
2. **Point to the highlighted range and right-click.**

   Notice the *Insert*, *Delete,* and *Clear Contents* commands on the Shortcut menu. From now on, feel free to right-click and use Shortcut menus — you will find them a big time saver.
3. **Close the workbook. If you wish, save the changes.**

End of Lesson 9