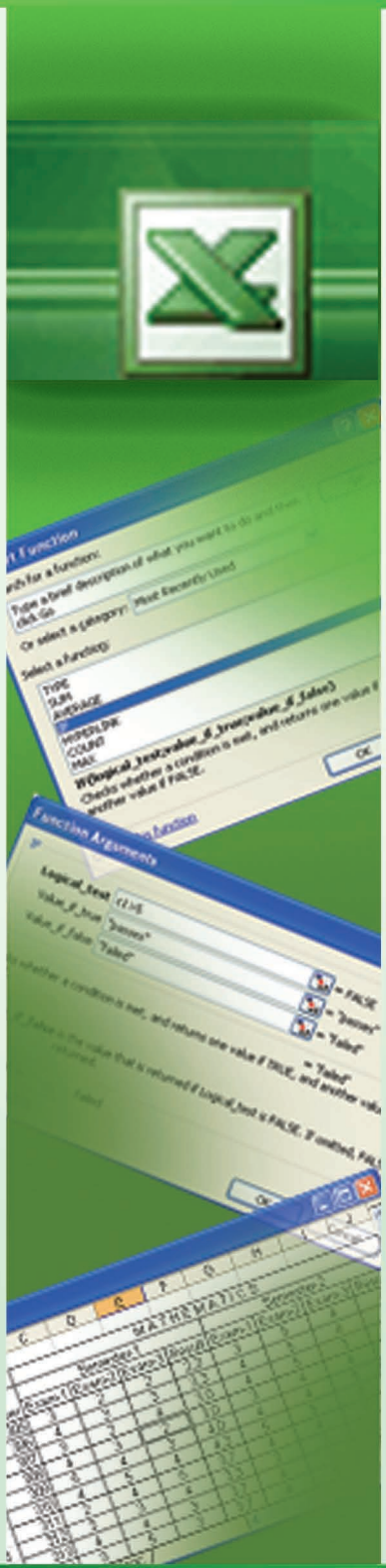


CHAPTER 2

WORKSHEET AND CELL OPERATIONS

- ✓ Mouse Pointers
- ✓ Cell Operations
- ✓ Worksheet Operations

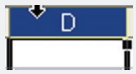
Microsoft Office
Excel 2003

WORKSHEET AND CELL OPERATIONS

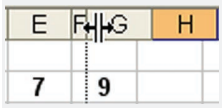
2.1 MOUSE POINTERS

There are different mouse pointers when working with Excel.

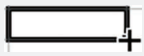
The **Select** mouse pointer is used to select a cell or a range.



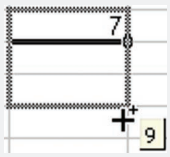
Select Column/Row is used to select rows or columns.



Unhide (show) a hidden row or column.

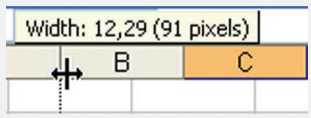


Copy/Fill series When you see this type of mouse pointer, and drag your mouse to another cell. A small box will appear next to the last cell with 4 different options, 



1. **Copy cells:** Copies and applies the format of the source cell to destination cells
2. **Fill series:** While applying the source format, automatically defines incrementation in the source, and fills series.
3. **Fill formatting only:** Just applies the formatting of the source cell(s) to the destination
4. **Fill without formatting:** Fill series or copy without formatting.

Move is used to move a range. Select the range that you want to move, and position your mouse pointer over a cell corner. When you see this type of mouse pointer drag it to the place that you want to move to. If the destination cells have data in them, Excel will prompt to overwrite.



Resize is used to resize columns or rows

2.2 CELL OPERATIONS

<Ctrl+A> selects all cells in a worksheet

2.2.1 Selecting a cell (or an area)

When you see the **Select** type of mouse pointer and click a cell, Microsoft Excel makes it the active cell. When you click a cell and drag the mouse pointer to another cell, all the cells between them will be selected as a range.

2.2.2 Moving through a selected area

In order to move throughout a selected area, without changing the selected range, four combinations can be used; Normally;

1. <Enter> : the bottom cell becomes the active cell.
2. <Shift+Enter>: the upper cell becomes the active cell.
3. <Tab> : the right cell becomes the active cell.
4. <Shift+Tab> : the left cell becomes the active cell.

On all of these options, after you reach the end of a column or row, if you again press the same key, the active cell goes automatically to the beginning of the next column or row.

<Shift+Tab>
the left cell becomes the active cell

<Shift+Enter>
moves active cell indicator to up one.

2.2.3 Selecting multiple cells, rows or columns

Using the SHIFT key and mouse (or with arrow keys), you can select multiple consecutive cells, rows, or columns. For this, first you select the initial cell (or row or column), then hold down the SHIFT key, using arrow keys or mouse, select the final cell (or row or column). Excel will automatically select all cells (or rows or columns) between the first and last locations. Using CTRL key and left mouse click, you can select multiple cells (and rows and columns) from different places.

To select an entire row:
Click the row heading

2.2.4 Entering data into a cell

In order to write in a cell, select it and type what you need. If you need to type multiple lines of text (or other data) press **<Alt+Enter>** at the end of each line.

Use <Alt+Enter> to write multiple lines in a cell.

2.2.5 Entering data into an area

After you select your data range, using the four combinations that we discussed in Section 2.2.2, you can move through and enter your data. In place of ENTER, use <Ctrl+Enter> to fill all the selected range with the same text.

Example 2.1:

Prepare your class list for informatics lesson marks. Select the marks as a range and enter marks for all students.

2.2.6 Clearing data

In order to clear the data in a cell range, after you select the range, press DELETE on the keyboard.

Physical deletion of cells is different than clearing the data in the cells and will be explained in Section 2.2.11

2.2.7 Resizing and auto sizing rows and columns:

Using the **Resize** mouse pointer, you can change the height of rows. If you select multiple rows (with either the CTRL or SHIFT keys), when you change the height of one row, MS Excel automatically applies the same height to all other selected rows. It's the same for columns. First select the column(s), then when you see the **Resize** mouse pointer drag to the width that you want.

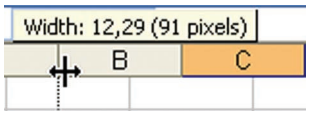


FIGURE 2.1
Resizing Columns

For auto sizing rows or columns, after you select your range, move your mouse pointer to a border of a row or column, when you see the Resize mouse pointer, double click it.

Select from **Format > Row > Height** to change the height. It will show you an input box. Instead of trying an approximate value, you can write a direct value in pixels for the height or width.

2.2.8 Hiding and Unhiding

When hiding rows or columns, they physically exist but their height or width is zero. Using the **Resize** mouse pointer, you can set the width of a column to zero and hide it. Or, from the popup menu, you can select the **Hide** command to do the same operation. Later, they can be **Unhide,** using **Format > Rows**.

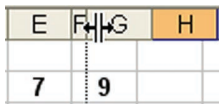


FIGURE 2.2
Unhiding Columns

2.2.9 Cut copy paste operations

<Ctrl+C> Copy
<Ctrl+X> Cut
<Ctrl+V> Paste
<Ctrl+Z> Undo

Cut, Copy, and Paste operations are similar to other Windows applications. After you select a range, right click on the selected area. From the popup menu, select Cut or Copy. The cells are copied into the office clipboard and ready to be pasted. Just select the starting cell of the destination, then from the popup menu select Paste. This will paste all data and formats of the source to the destination.

2.2.10 Paste Special

Paste special is one of the best features of Excel. In many conditions, you cannot copy all formats and data to the destination. For this purpose, Paste Special offers many useful options for users. Most of them are clear in expression and don't need to be explained further.

FIGURE 2.3 The Paste Special window

1. **All:** Pastes all, which is the same as regular paste.
2. **Formulas:** Pastes just the formula while adjusting the formula according to the destination (See Absolute and Relative Reference in Section 5.1.3).
3. **Value:** Pastes only the resulting values of formulas.
4. **Formats:** Paste the format only.
5. **Comments:** Paste the comments (refer to Comments in Section 8.5).

Operation

1. **None:** No operation
2. **Add:** When having numerical values, the source value can be arithmetically added to the destination value.
3. **Subtract:** The source value can be arithmetically subtracted from the destination value.
4. **Multiply:** Multiplies the source and destination values.
5. **Divide:** Divides the destination by the source value.

Skip blanks: It doesn't copy anything if the source cell is empty.

Transpose: Shifts the vertical and horizontal orientation of the cell range. If your cells are horizontally adjacent, it will rotate them to a vertical list.

2.2.11 Deleting – Inserting

a. A cell or a group of cells

When you want to delete a cell itself, but not the content of that cell, right click on it and select **Delete** from the popup menu. Because the cell will be deleted physically, like a wall of bricks, the space cannot be empty, other cells will fill in the space.

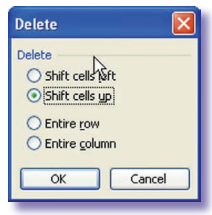


FIGURE 2.4
Deleting a cell

In this case, you will have four different options:

1. **Shift cells left:** After deleting the selected range, it will move the cells from right to left, in order to fill the space.
2. **Shift cells up:** After deleting the selected range, it will move the bottom cells up, in order to fill the space.
3. **Entire row:** In order not to give a empty mid space, it will delete an entire row and move all bottom rows up.
4. **Entire column:** or you can select to delete an entire column.

*To delete a column, right click on the column heading and select **Delete** from the menu.*

The insertion process is similar to deletion. In order to add new physical space, some cells need to be moved. You can move right, or down, or you can insert an entire row or column. If you insert a row then all the rows will be moved one down. If your last row (e.g. Row 65536) contains data, it will ask you to move this data into a different location or clear it and try again.

b. Rows or columns

There is another method to delete rows. After selecting the rows heading that you want to delete, right click the selected area and select **Delete**. It will directly delete the selected rows or columns.

2.3 WORKSHEET OPERATIONS

2.3.1 Deleting a worksheet:

If you are sure to delete the Entire worksheet, right click on the worksheet name and then select **Delete** from the popup menu. There is no undo after you delete a worksheet and you cannot get your data back, Excel will ask if you are sure you want to delete.

2.3.2 Renaming a worksheet:

In order to rename a worksheet, right click on the worksheet name and then select **Rename** from the menu. Or you can directly double click on worksheet name and make your change.

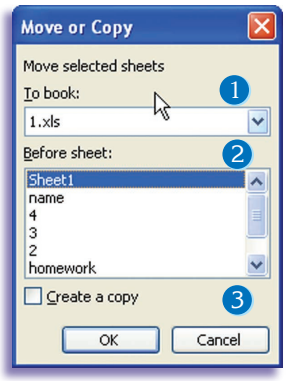


FIGURE 2.5 Copying or moving a worksheet

2.3.3 Moving or copying a worksheet

This option lets you Move or Copy the selected worksheet to a different location in the same file or in another file. To Move or Copy, right worksheet name and select **Move or Copy…** A window will open. From the combo box 1, you can select to which workbook to copy to. If you check **Create a copy** 3, the source worksheet will be copied to the new location. Otherwise, it will be moved to. The list box in the middle 2 shows the worksheets of the selected workbook 1. The source worksheet will be inserted before the selected sheet.

2.3.4 Inserting an empty worksheet

Sometimes, you may need a new worksheet. Right-click on a worksheet name. From the popup menu select **Insert,** then select **Worksheet** from the window.

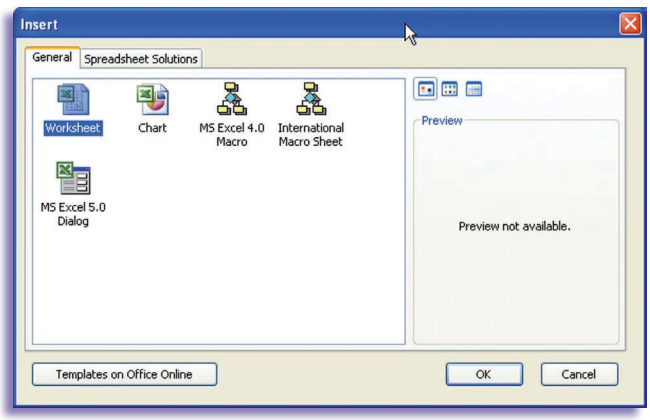


FIGURE 2.6 Inserting an empty worksheet

There are two tabs in this window. The **General** tab shows general options: Dialog, Chart, Macro or Worksheet. If you select the Worksheet option, it will insert an empty worksheet. If you select the Chart option, it will show necessary dialog boxes to prepare a chart and so on. The chart, macro and dialog box options will be studied later.

2.3.5 Selecting Multiple Worksheets

Similar to selecting multiple cells, using the CTRL and SHIFT keys you can select multiple worksheets. When selecting an adjacent group of worksheets, first select the starting worksheet. Then while holding down the SHIFT key, select the last sheet of the adjacent list. All the worksheets between these two will be selected.

When selecting nonadjacent worksheets, select the first worksheet or range of worksheets, and then hold down CTRL and select the other worksheets or ranges.

To select multiple worksheets, <Ctrl+Click>

2.3.6 Changing an active worksheet

Using the <Ctrl+Page up> or <Ctrl+Page down> keys, you can activate different sheets. Or, using the navigation buttons, you can move through the worksheets and use the mouse to activate the worksheet that you want. If you want to select multiple worksheets, hold down the CTRL or SHIFT keys and use the Page Up or Page Down and Space bar keys.

<Ctrl+Page up>
Previous worksheet

<Ctrl+Page Down>
Next worksheet

CHAPTER 2
in BRIEF

In this chapter, you became familiar with the outline of Microsoft Excel and frequently used operations. First things first, you studied the common mouse pointers and operations.

You activate the cell by clicking on it. It means you might make changes to this cell. If you would like to select more than one cell, you may use the CTRL or SHIFT keys together with the left mouse click. You will use <Alt+Enter> at the end of each line if you want to enter multiple lines in a cell.

The best way of moving through a selected area and editing your data is to use the shift, tab, and enter keys.

You can hide your data easily in Microsoft Excel by setting its row height to zero using **Row** on the **Format** menu

One of the many good options you learnt in this chapter is **Paste Special**. This option lets you copy the values or formats only or add the item you copied to it's destination individually.

You have studied a dangerous option too. If you delete the entire worksheet, you cannot take it back. That is why you should read the messages carefully, before taking the next step, to avoid a mistake that would make you unhappy.

Moving a sheet is very easy in Microsoft Excel. Just select the sheet by right clicking on worksheet name tab and from the popup menu choose **Move or Copy...** With this option you can copy the sheet, move it to another workbook or to a new workbook.

If you want to create more sheets, you will click on the **Insert** menu and choose **Sheet**. A new sheet will be created.

You can group worksheets together by clicking on them while the CTRL key is pressed. With this, you can arrange the format in multiple sheets simultaneously. You can make the outline of your table and extend this to multiple sheets by using this option. Well done! You did it.

SUMMARY

QUESTIONS

1. Without using the mouse or the arrow keys, what is the fastest way of getting to cell A1 in a spreadsheet?
A. <Home>
B. <Shift+Home>
C. <Ctrl+Home>
D. <Alt+Home>

2. How do you select an entire row?
A. Edit>Select>Row from the menu.
B. Click the Row heading letter.
C. Hold down the CTRL key as you click anywhere in the row.
D. Hold down the SHIFT key as you click anywhere in the row.

3. What is <Shift+Tab> used for?
A.Moves active cell indicator down one cell.
B.Moves active cell indicator up one cell.
C.Moves active cell indicator to the right one cell.
D.Moves active cell indicator to the left one cell.

4. To delete a column,
A.Right click on a cell and then press DELETE.
B.Right click on the column heading and then select Delete.
C.Select the cells which you want to delete, and then press the delete button on keyboard.
D.Select the cells which you want to delete, and then press <Ctrl+Spacebar> button

5. Which key combination is used to change the active worksheet?
A. <Ctrl+Page Up>
B. <Shift+Page Up>
C. <Ctrl+Shift>
D. <Alt+Page Down>

6. To select the multiple cells, which keys are held down while clicking the mouse?
A. <ALT + SHIFT>
B. <ALT + CTRL>
C. <SHIFT + CTRL>
D. <ALT + SHIFT + CTRL>

7. Which key is used to modify data in a selected cell?
A.F1 B.F2 C.F3 D.F4

8. To select all cells in a workshee press,
A. <Ctrl+X>
B. <Alt+V>
C. <Ctrl+B>
D. <Ctrl+A>

9. Which of the following is **not** a way to complete a cell entry?
A. Click the Enter button on the formula bar
B. Press any arrow key on the keyboard
C. Press ENTER
D. Press INSERT

10. Which of the following is different from the others?
A. Cell
B. Row
C. Column
D. Gridline

11. Which keystrokes must be used to copy selected cells?
A. <Ctrl+X> and <Ctrl+V>
B. <Ctrl+C> and <Ctrl+V>
C. <Ctrl+V> and <Ctrl+C>
D. <Ctrl+Z> and <Ctrl+V>

12. How can you cancel the last action?
A. <Ctrl+Z>
B. <Alt+Z>
C. <Ctrl+Y>
D. <Ctrl+Backspace>

13. Which of the following is **not** a method for adjusting the width of a column?
A.Drag the column header's right border to the left or right.
B.Double-click the column header's right border.
C.Select the column header and click the Column Width button on the Standard toolbar.
D.Right-click the column header, select Column Width from the popup menu, and enter its new width.

14. Which of the following are true for inserting a row?

I. Right-click the row heading where you want to insert the new row and select Insert from the popup menu.

II. Select the row heading where you want to insert the new row and select Rows from the Insert menu.

III. Select a cell where you want to insert the new row, right click the mouse, select Insert and select Entire row.

IV. Select a cell where you want to insert the new row and select Insert > Rows from the menu.

A. I, II
B. I, II, III
C. I, II, IV
D. I, II, III, IV

15. Which of the followings is **not** a way of deleting a column ?

A. Right-click the column heading you want to delete and select Delete from the popup menu.

B. Select the column heading you want to delete and select Delete from the Edit menu.

C. Select the column heading you want to delete and select the Delete Row button on the Standard toolbar.

D. Select a cell where you want to delete the column, right click and select delete then select Entire column.

16. If you extend the following series two cells down while the first two cells are selected, what are the new dates in the 3rd and 4th rows ?

	A	B
1		Friday, October 01, 2004
2		Tuesday, October 05, 2004

A. Friday, October 01, 2005
Tuesday, October 05, 2006

B. Wednesday, October 06, 2004
Thursday, October 07, 2004

C. Friday, October 09, 2004
Tuesday, October 13, 2004

D. Saturday, October 09, 2004
Wednesday, October 13, 2004

17. To copy a format from one cell and apply it to another cell you would use:

A. The Copy Format and Paste Format commands from the Edit menu.

B. The Format Painter button on the Standard toolbar.

C. There is no way to copy and apply formatting in Excel—you would have to do it manually.

D. The Copy and Apply Formatting dialog box, which is located under the Format > Copy and Apply menu.

QUESTIONS

WORD SEARCH PUZZLE

S	P	A	R	A	B	E	C	A	P	S	S	D
P	Y	H	A	I	J	N	C	H	J	C	E	G
R	O	K	B	J	Y	W	F	E	C	R	D	K
E	C	O	L	U	M	N	N	R	L	O	H	U
A	L	O	O	V	Y	T	Z	X	F	L	K	C
D	T	B	O	P	E	R	F	X	X	L	S	U
S	S	K	T	R	D	R	D	N	E	I	G	P
H	O	R	I	Z	O	N	T	A	L	N	Z	V
E	F	O	R	M	A	T	T	I	N	G	Q	S
E	Y	W	F	M	X	W	P	W	C	H	C	J
T	P	B	M	V	B	D	C	I	L	A	T	I
B	J	O	E	V	Z	C	U	T	F	L	L	C
G	C	W	N	V	C	B	Q	P	V	K	O	J

Solve the clues and find each word in the puzzle.

WORDS	CLUES
SCROLLING	Move on-screen text or images horizontally or vertically so new information appears on one side of the screen as older information disappears from the other side.
	A key on the keyboard.
	Can contain buttons, menus, or a combination of both.
	A font style
	The basic unit of a worksheet into which you enter data
	It's named with numbers and contains 256 cells
	Order.
	A toolbar
	Something which is parallel to level ground
	A font style
	It is named with letters and contains 65536 cells
	A page in a workbook
	Upright position.
	Made up of sheets
	Extension of an Excel document.

ENTERTAINMENT

PRACTICE

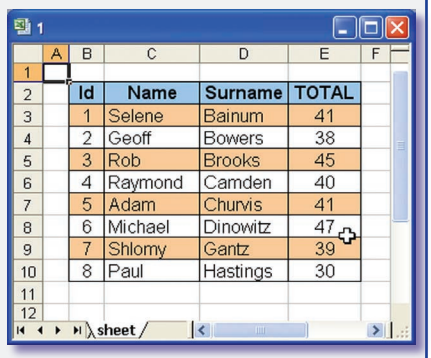
Use Figure 2.7 for questions 1 through 4.

1. Height of the rows in the table is 12.75. Change them to 15.

2. As shown in the figure, range B2:E2 is the title of the table. Move this range to the bottom of the table.

3. Delete the 4th and 7th rows at the same time.

4. Add 3 columns between columns D and E.



Id	Name	Surname	TOTAL
1	Selene	Bainum	41
2	Geoff	Bowers	38
3	Rob	Brooks	45
4	Raymond	Camden	40
5	Adam	Churvis	41
6	Michael	Dinowitz	47
7	Shlomy	Gantz	39
8	Paul	Hastings	30

FIGURE 2.7

5. Write numbers using the Fill Series command in Figure 2.8.

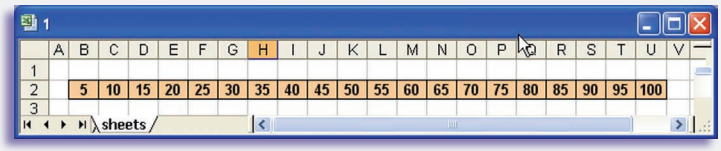


FIGURE 2.8

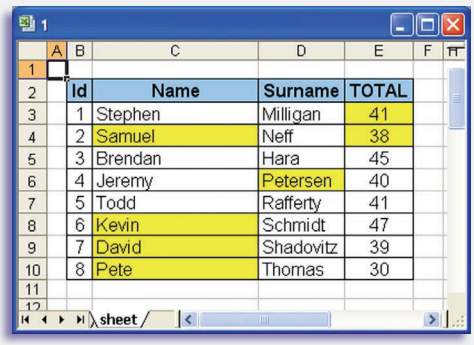
6. Do you know how to change the active worksheet without using the mouse?

7. Type your name to all cells in the range A1: P20 using the fastest way.

8. As shown in Figure 2.9, can you turn yellow colored cells to blue at the same time.

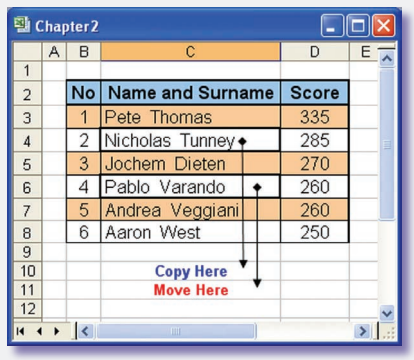
9. Can you select all cells using the keyboard?

10. On Figure 2.10, Copy the cell C4 to C10 and Move the cell C6 to C11.



Id	Name	Surname	TOTAL
1	Stephen	Milligan	41
2	Samuel	Neff	38
3	Brendan	Hara	45
4	Jeremy	Petersen	40
5	Todd	Rafferty	41
6	Kevin	Schmidt	47
7	David	Shadovitz	39
8	Pete	Thomas	30

FIGURE 2.9



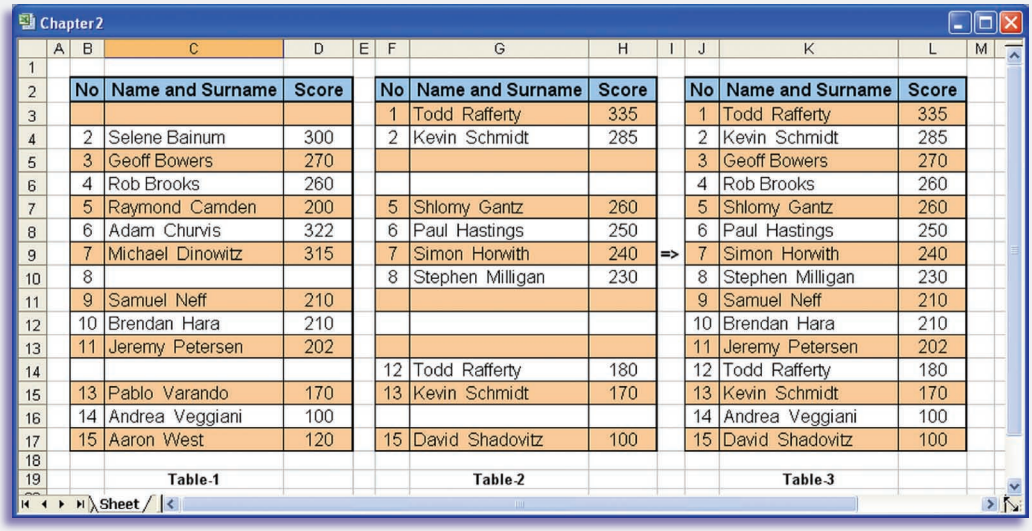
No	Name and Surname	Score
1	Pete Thomas	335
2	Nicholas Tunney	285
3	Jochem Dieten	270
4	Pablo Varando	260
5	Andrea Veggiani	260
6	Aaron West	250

Copy Here
Move Here

FIGURE 2.10

PRACTICE

11. How can you add the records from Table-1 to Table-2 to produce Table-3.



Chapter2

No	Name and Surname	Score
2	Selene Bainum	300
3	Geoff Bowers	270
4	Rob Brooks	260
5	Raymond Camden	200
6	Adam Churvis	322
7	Michael Dinowitz	315
8		
9	Samuel Neff	210
10	Brendan Hara	210
11	Jeremy Petersen	202
13	Pablo Varando	170
14	Andrea Veggiani	100
15	Aaron West	120

Table-1

No	Name and Surname	Score
1	Todd Rafferty	335
2	Kevin Schmidt	285
5	Shlomy Gantz	260
6	Paul Hastings	250
7	Simon Horwith	240
8	Stephen Milligan	230
12	Todd Rafferty	180
13	Kevin Schmidt	170
15	David Shadovitz	100

Table-2

=>

No	Name and Surname	Score
1	Todd Rafferty	335
2	Kevin Schmidt	285
3	Geoff Bowers	270
4	Rob Brooks	260
5	Shlomy Gantz	260
6	Paul Hastings	250
7	Simon Horwith	240
8	Stephen Milligan	230
9	Samuel Neff	210
10	Brendan Hara	210
11	Jeremy Petersen	202
12	Todd Rafferty	180
13	Kevin Schmidt	170
14	Andrea Veggiani	100
15	David Shadovitz	100

Table-3

Sheet

FIGURE 2.11

12. On Figure 2.11, copy the format of Table-1 to Table-2 using **Paste-special**.

13. Sometimes you need to change the direction of your lists from vertical to horizontal or vice versa. Show how you can change the list in Table 1 as in Table 2.

Chapter2

No	Players	Country
1	Adam Churvis	England
2	Michael Dinowitz	Korea
3	Shlomy Gantz	USA

Table-1

No	1	2	3
Players	Adam Churvis	Michael Dinowitz	Shlomy Gantz
Country	England	Korea	USA

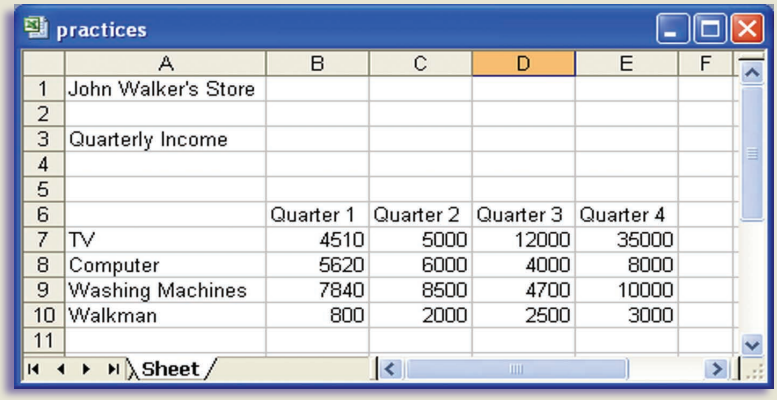
Table-2

Sheet

FIGURE 2.12

HOMEWORK

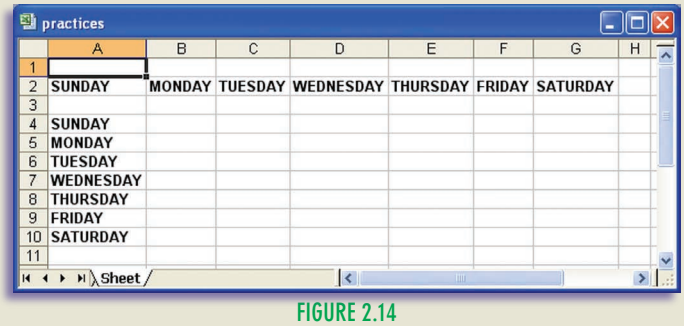
1. Find the cell AZ150 in the active worksheet.
2. Using the skills you've learned in this chapter, create a worksheet similar to the one shown here (you can fill it in using your own numbers if you want.)
3. Create a "Total" row in row 11. Calcute and write the sum for each quarter.



	A	B	C	D	E	F
1	John Walker's Store					
2						
3	Quarterly Income					
4						
5						
6		Quarter 1	Quarter 2	Quarter 3	Quarter 4	
7	TV	4510	5000	12000	35000	
8	Computer	5620	6000	4000	8000	
9	Washing Machines	7840	8500	4700	10000	
10	Walkman	800	2000	2500	3000	
11						

FIGURE 2.13

4. Write weekdays horizontally as shown in Figure 2.14. Then use the paste-special feature to shift to vertical.



	A	B	C	D	E	F	G	H
1								
2	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
3								
4	SUNDAY							
5	MONDAY							
6	TUESDAY							
7	WEDNESDAY							
8	THURSDAY							
9	FRIDAY							
10	SATURDAY							
11								

FIGURE 2.14

HOMEWORK