CHAPTER 1

AutoFill

The AutoFill feature in Microsoft Excel can automatically fill in cells with commonly used series (numbers, months, and days of the week) or with custom lists you can create. This chapter will demonstrate how to use the drag handle and other ways to fill in information. These operations work in all directions; top down, down up, left to right, and right to left. Figure 1.1 demonstrates this feature.

Select two adjacent cells and release the mouse. When you hover again over the lower right corner, your mouse pointer should change shape to a crosshair (+) called a drag handle. You can click and drag down the column and Excel will continue the initial two-cell series for you.

You can AutoFill several types of data including, but not limited to, numbers, dates, days, and annual quarters by selecting cells and dragging the handle as shown in Figure 1.1.

By default, a number of AutoFill lists are pre-installed in the program. For a list of the available AutoFill series, go to the Widows icon, click on Excel Options, and click on the Edit Custom Lists button. See Figure 1.2.

You may add your own lists as needed to Custom Lists. This will be explained at the end of the chapter.

Try to use the following example for using the Custom Lists shown in Figure 1.3. We filled in the information in the sheet. You may want to open the *AutoFill* sheet in the Excel file for Chapter 1 on the accompanying CD. The example illustrates the use of the AutoFill feature in Excel.

Select the first two values in column B (B2 and B3), click on the lower right drag handle of cell B3, and pull the drag handle down toward cell B10.

Dragging down the information created the desired AutoFill effect of continuing with the same series of numbers: 6, 9, 12, 15, . . . , 30. Try to drag down the information shown in columns C and D. You will create the information shown in Figure 1.4.

After you experiment with a couple of columns, try a more efficient way: select two vertical adjacent cells E2:E4. Release the mouse for a moment. Go to the drag handle. This time—do not drag—just **double-click.** Excel will drag it for you. See Figure 1.5. It will complete filling for you to the end of the adjacent column on the left. You may try double-clicking with more than one column selected at a time. Double-click works only in one direction: down.

You may want to try it yourself. As shown in Figure 1.6, all of the columns selected are highlighted and the crosshair handle appears at the lower right corner of the final column. In Figure 1.7, you can see the results after using the AutoFill double-click.

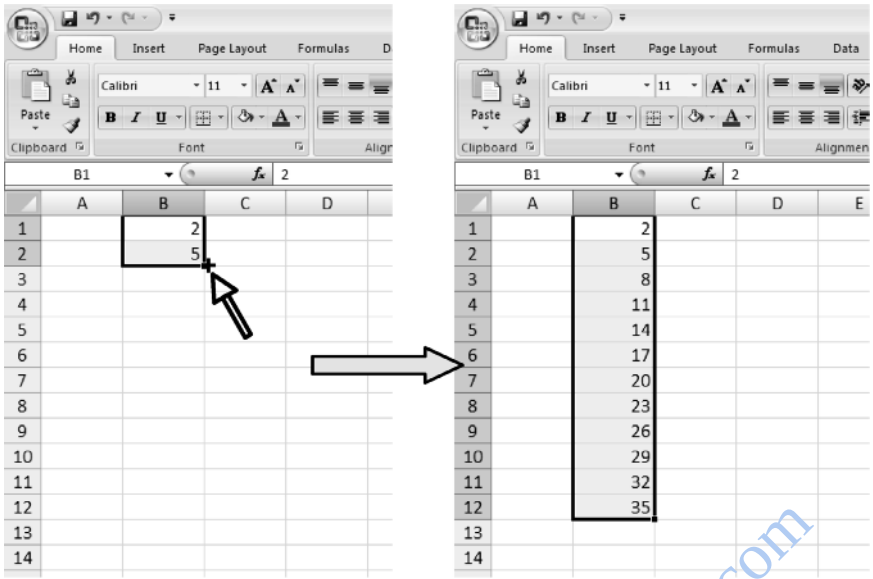


Figure 1.1 Using the drag handle

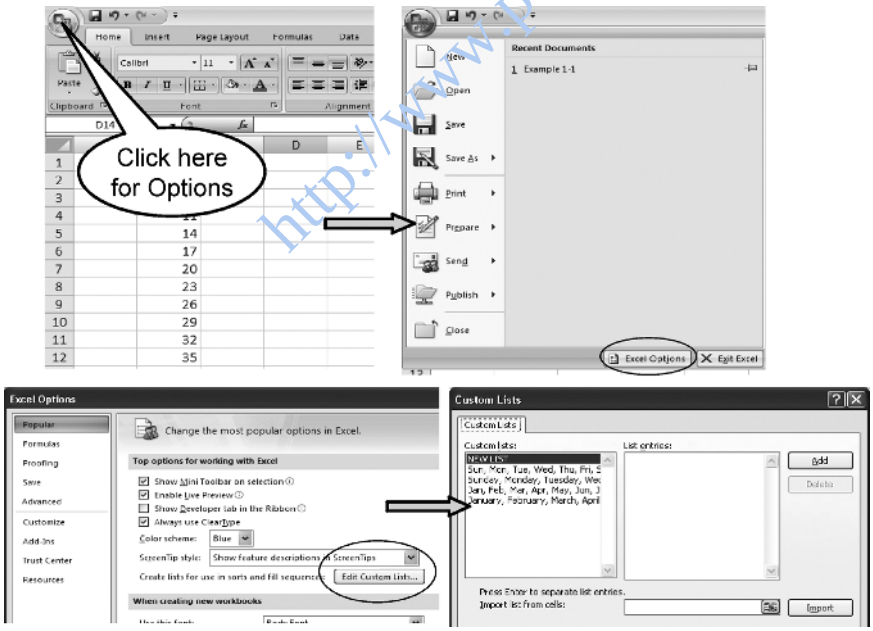


Figure 1.2 Custom Lists

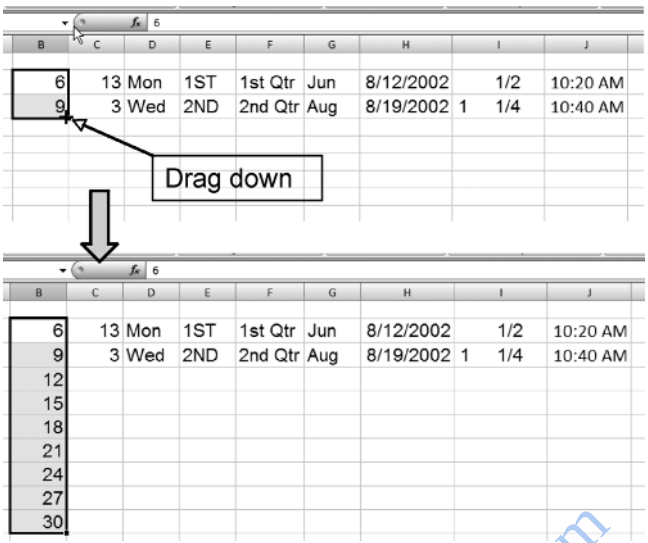


Figure 1.3 Drag handle and AutoFill

More features of the AutoFill function will be discussed in the context of regressions in Chapter 3. I will also explain the concept of Time in Excel in Chapter 3.

Creating Custom Lists in Excel enables you to use these lists as demonstrated with the AutoFill function. Custom Lists let you use them when you sort in Excel. In addition to sorting in numerical or alphanumeric order, you can also sort with these Custom Lists or with the ones you create. You can use the list created here later to sort a database.

Figure 1.4 "Dragging" down the information

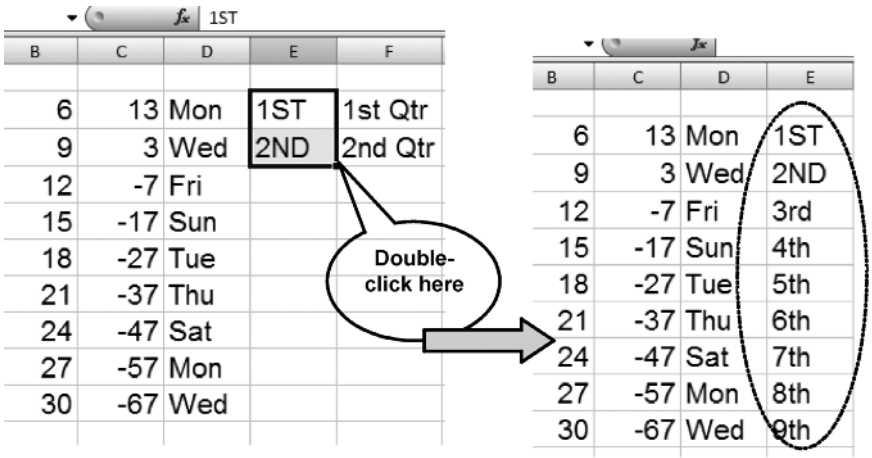


Figure 1.5 Double-click the drag handle

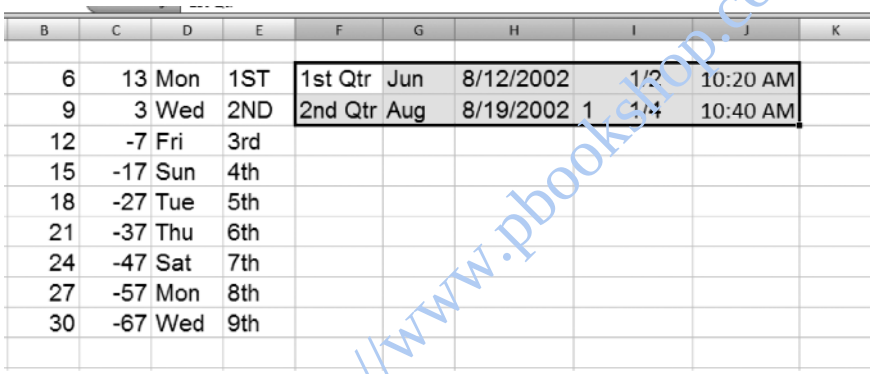


Figure 1.6 Highlighting more than one column

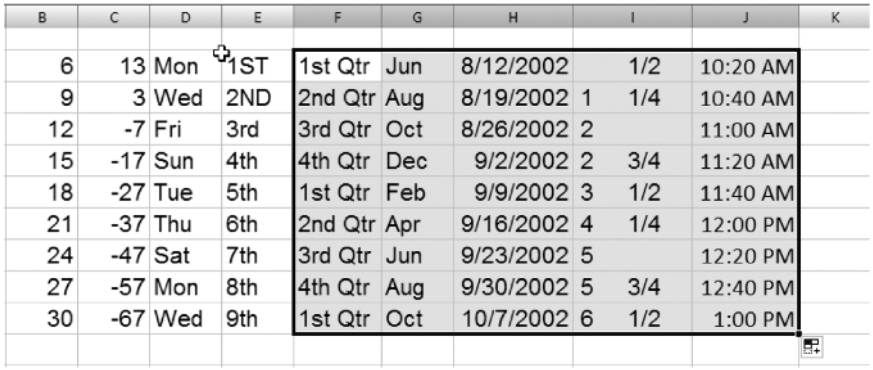


Figure 1.7 AutoFill result

Figure 1.8 Custom List example

To create a Custom List in Excel, you need to type the list in a range on a sheet as shown in Figure 1.8. I used a list of the 10 largest cities in the USA where your company may be doing business as an example.

Refer to Figure 1.2 for how to access the Custom Lists menu. Go to the Office icon, click on Excel Options, and click on the Edit Custom Lists button. The result is shown in Figure 1.9.

Now all you have to do to make the list of the ten largest cities in the US, sorted by population size, part of your Excel Custom List, is click on the empty cell on the menu to the left of the Import button and select the cells on the sheet. Click on the Import button and the list is now part of your Custom Lists. See Figure 1.10.

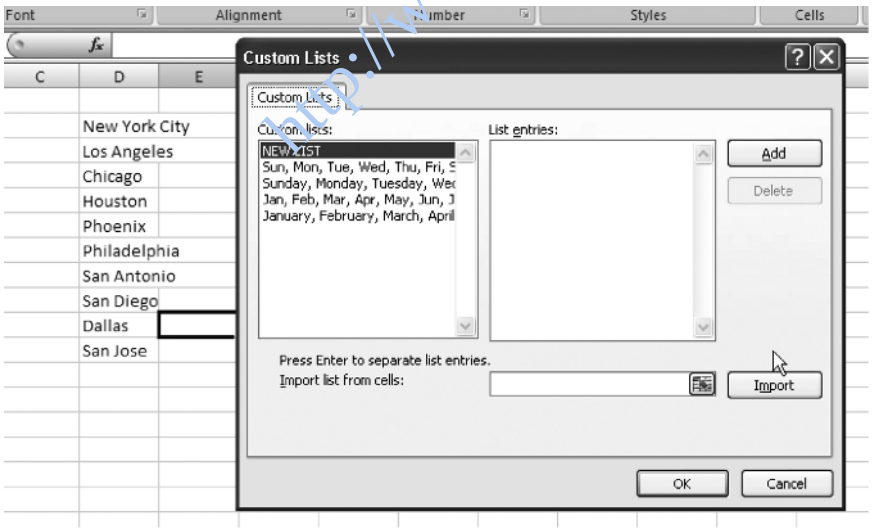


Figure 1.9 Create a Custom List

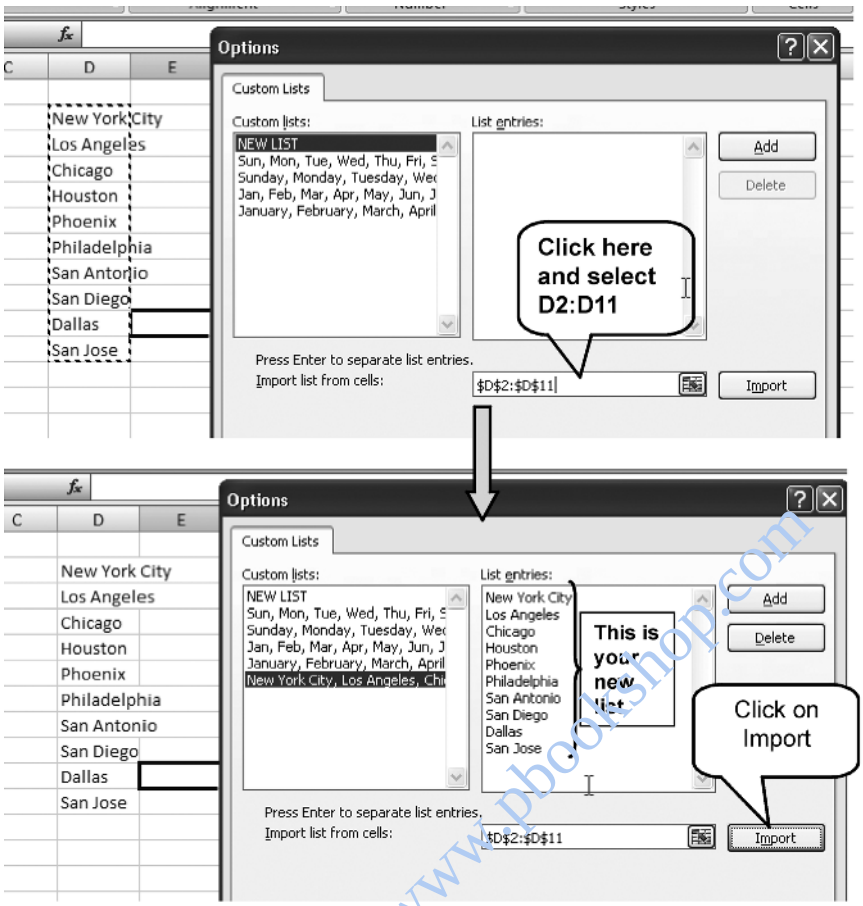


Figure 1.10 Custom List result

AutoFill Options

When you complete dragging any of the AutoFill lists, you will see a small Options icon at the bottom right of the list. When you click on the icon, it will allow you to choose one of the options. See Figure 1.11.

The AutoFill option recognizes days and dates. When you click on the menu with a list of dates or days of the week, Excel provides you with the additional options of choosing days, weekdays only—without weekends—or even spacing the list out, incrementing the dates by months or years. See Figure 1.12.

Right-Drag AutoFill

When you right-click and drag a numeric series, the menu offers you additional features as shown in Figure 1.13. The additional feature that could help us more than the others on the list is the Growth Trend feature. We can think of many other applications once we

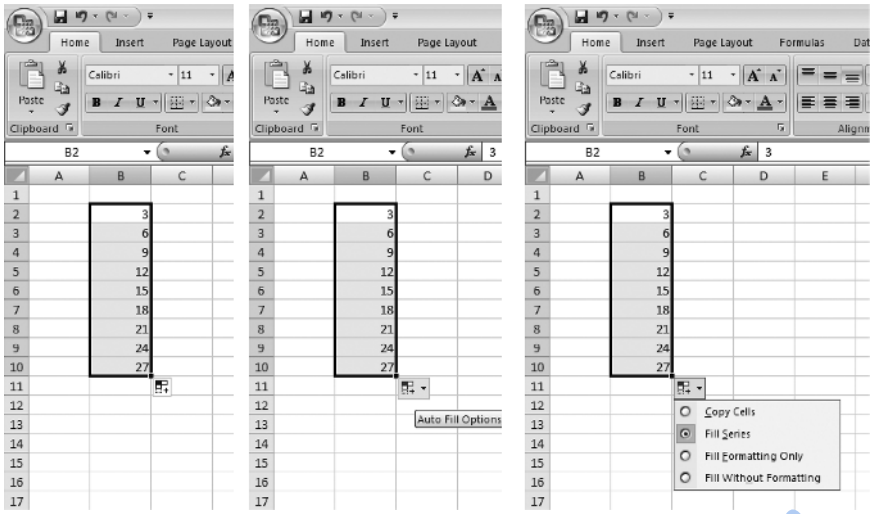


Figure 1.11 AutoFill options

understand what it can do. The following are two examples that can illustrate the power of this element in Excel.

If you need to create an exponential list of 2^2, all you to do is type the first two terms in the series (2 and 4) and the Growth Trend feature in the list will create the series as show in Figure 1.14. It will result in 2, 4, 8, 16, and so on. Using this idea, we can create a

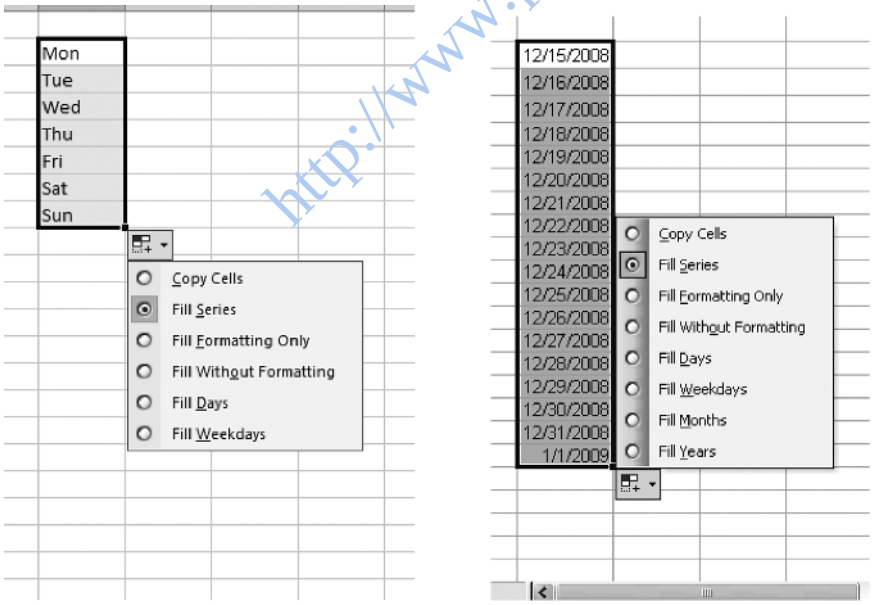


Figure 1.12 AutoFill menu

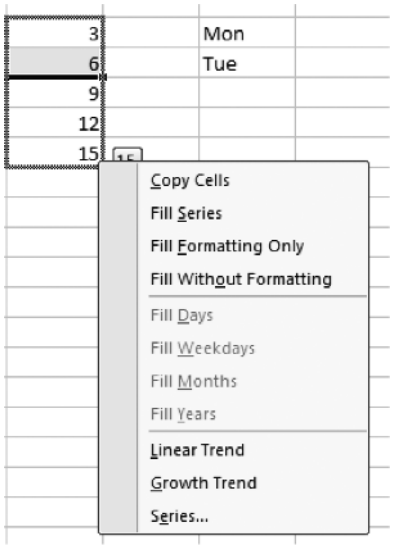


Figure 1.13 Choosing AutoFill options

2	3	1	100%
4	9	1.1	110%
8	27	1.21	121%
16	81	1.331	133%
32	243	1.4641	146%
64	729	1.61051	161%
128	2187	1.771561	177%
256	6561	1.948717	195%
512	19683	2.143589	214%

Figure 1.14 Exponential trend results

compounded interest series. If you want a growth factor of 10 percent a year, you can type 1.0 and 1.1 or 100 percent and 110 percent and the Growth Trend feature will do the rest as illustrated in Figure 1.14.

APPENDIX—DOING IT IN EXCEL 2003

Custom Lists Menu: There are two examples shown in this chapter that are slightly different in Excel 2007 than in Excel 2003. Both examples deal with the procedure to access the Custom Lists menu in Excel 2003. In the 2007, version we used the Office icon to get to the Excel Options menu and the Custom Lists menu.

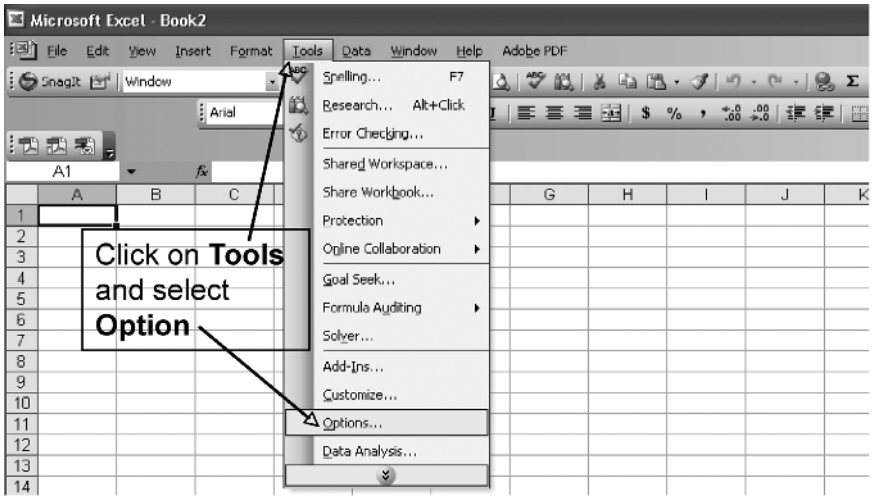


Figure 1.15 Options menu in Excel 2003

In Excel 2003, you click on the Tools menu and then select Options. See Figure 1.15

The Options screen appears and you can select the Custom Lists tab. See Figure 1.16. All the other features of importing custom lists are the same as in Excel 2007—as described above.

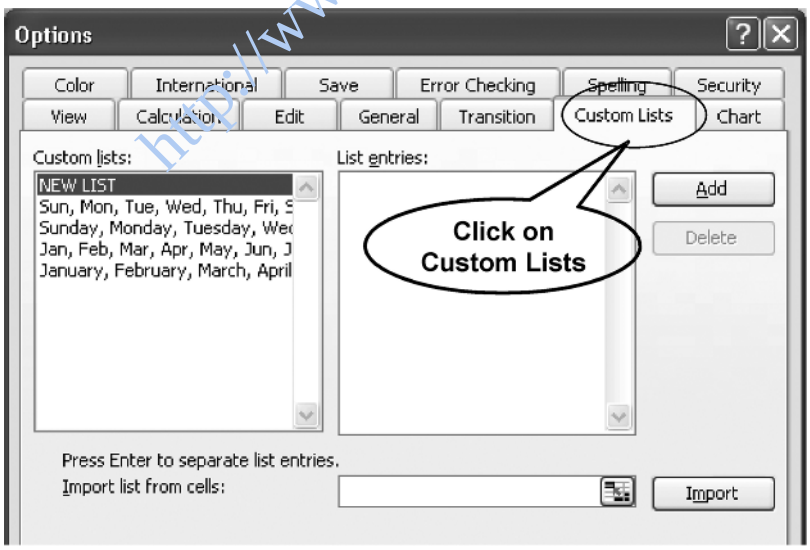


Figure 1.16 Custom Lists menu in Excel 2003

REVIEW QUESTIONS

You will find these examples in the Excel Chapter 1 file:

1. The chapter problems sheet of Chapter 1 has the following data:

5	22	Tue	12/12/2009	4 1/2	November	6:30 AM
6	17	Thu	12/17/2009	7 1/4	January	7:30 AM

Use the AutoFill feature to extend the first column with the values 5 and 6 creating the list through 10 as shown here:

5	22	Tue	12/12/2009	4 1/2	November	6:30 AM
6	17	Thu	12/17/2009	7 1/4	January	7:30 AM
7						
8						
9						
10						

2. Use the double-click AutoFill feature to fill up the rest of the table resulting in a complete table.

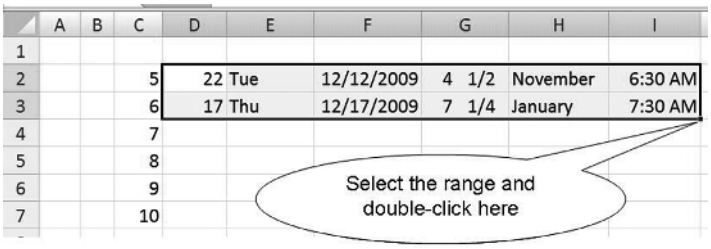
5	22	Tue	12/12/2009	4 1/2	November	6:30 AM
6	17	Thu	12/17/2009	7 1/4	January	7:30 AM
7	12	Sat	12/22/2009	10	March	8:30 AM
8	7	Mon	12/27/2009	12 3/4	May	9:30 AM
9	2	Wed	1/1/2010	15 1/2	July	10:30 AM
10	-3	Fri	1/6/2010	18 1/4	September	11:30 AM

3. Use your Excel Options menu to create a custom list of the 10 largest suspension bridges in the world:

Bridge	City/Region	Country
Akashi Kaikyo Bridge	Kobe- Awaji Route	Japan
Xihoumen Bridge	Zhoushan Archipelago	China
Great Belt Bridge	Halsskov Sprogo	Denmark
Runyang Bridge	Yangtze River	China
Humber Bridge	Barton-upon-Humber	United Kingdom
Jiangyin Suspension Bridge	Yangtze River	China
Tsing Ma Bridge	Tsing Yi-Ma Wan	Hong Kong
Verrazano Narrows Bridge	New York City	USA
Golden Gate Bridge	San Francisco	USA
Yangluo Bridge	Yangtze River	China

ANSWERS

1. Select the two first figures 5 and 6. Click on the grab handle and drag down until you see the value 10.
2. **a.** Select the rest of the table as you see in the figure.
   b. Double-click on the grab handle.



3. Click on the Office icon. Select Excel Options at the bottom of the menu. Click on Edit Custom Lists in the middle of the menu. (In Excel 2003, use Tools ⇒ Options ⇒ Custom Lists.) On the resulting menu, select the range K10:K19 and click on Import.