Competency Assessment

Project 4-1: Basic Formulas

In this exercise you will build formulas using text, numeric data, and cell references.

1. Open the practice file 2013_output and save your document as project_4-1_formulas.
2. In cell F3, type =SUM(.
3. Select cells B3:D3 and type).
4. Drag F3's AutoFill handle down to reuse its formula in F4:F13.
5. Select B15 and use the AutoSum > Sum command over the range B3:B13.
6. Drag B15's AutoFill handle to C15.
7. Select cell C15 and press Ctrl+C to copy.
8. Select D17 and press Ctrl+V, then edit D17's formula to =SUM(D3:D13).
9. Select F19 and click AutoSum.
10. Select B23 and add the formula =COUNTA(A3:A13).
11. Click B24.
12. Type =. Click cell F19. Type /. Click cell B23. Press Return.
13. Save and close your document.

Project 4-2: Range Names

In this exercise you'll create named ranges for ease of use.

1. Open the project file 4-2-source and save it as project_4-2_range_names.
2. Press Ctrl+A and change the fill color to No Fill.
3. Select B3:D3.
4. Click Formulas > Define Name and name the range AstridSales. Note that Astrid-Sales appears in the Name Box.
5. Select B3:B13 and name the range JanJunSales.
6. Do the same for C3:C13 (JulDecSales) and D3:D13 (OnlineSales).
7. Open the Name Manager. Double click the Astrid entry and add a comment ("label not included").
8. Close the Name Manager.
9. Save and close your document.

6. Temporarily remove individual elements from a chart's data series with the _____ tool.
7. The command to switch a chart from Bubble Chart to Clustered Bar is _____.
8. A _____ sparkline displays positive values above a dividing line and negative values below it.
9. Create a sparkline without opening the Ribbon by selecting a data range and clicking the _____ button.
10. A single graph with both line and column plots is called a _____ Chart.

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Project 5-1: Creating a Simple Chart

In this exercise you will create a simple chart in a new worksheet.

1. Open Excel and create a new blank worksheet.
2. Save your document as project_5-1_simple_chart.
3. In A1, type Date. In B1, type Calls.
4. Populate A2:A9 with the dates December 1-8.
5. Populate B2:B9 with the data series 6, 4, 4, 9, 6, 2, 6, 9.
6. Apply the Heading 2 cell style to A1:B1.
7. Select A1:B9. Click the Quick Analysis button, then select Charts > Line.
8. Save and close your document.

Project 5-2: Chart Elements

In this exercise you'll begin to customize the content and presentation of your chart.

1. Open the document 5-2-source and save it as project_5-2_elements.
2. Click on the chart's Chart Elements button.
3. Deselect Gridlines. Select Axis Titles > Primary Vertical (not Horizontal).
4. Select the chart's title (Calls), the double click it to edit the text. Type Daily Sales Calls.
5. Similarly edit the vertical axis title to Only completed calls are counted.
6. Click the Chart Styles button and select Style 2.
7. Under Chart Styles > Color, select Color 3 (orange).
8. Press Ctrl+W to close the document. When prompted, save your work.

Fill in the Blanks

Complete the following sentences by writing the correct word or words in the blanks provided.

1. An Ascending Sort of the series (3, 5, 1, 8, 2, 2, 0, 4) produces the series _____.
2. To enable the Hide/Show Detail commands, you must _____ data in your spreadsheet, or calculate _____ for some subset of the data.
3. The _____ tool can, for instance, force the user to enter dates in a certain range into a cell.
4. The most flexible way to include mailing addresses in an Excel list is to first break them into _____ form.
5. Using the / (forward slash) character as a delimiter when breaking up the string "3:00pm on 5/30/99" yields the following entry: _____.
6. The Data Validation will throw up an _____ when data outside its acceptable range is entered.
7. After subtotals are applied to a list, Excel converts it automatically to _____ view.
8. To create an Advanced sort, first preselect or _____ part of the data.
9. The _____ command lets you clear redundant/repeated data within a column.
10. Clicking the dropdown arrow in a column's header cell displays a set of commands to _____ the entries in the column.

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Project 6-1: Filtering Lists

In this exercise you'll filter and sort data in a list.

1. Open the practice file state_rankings and save a copy called project_6-1_filters.
2. Select cell A1 and click Data > Filter.
3. Hide column B.
4. Select the filter dropdown arrow for column C, and choose Number Filters > Top 10. In the Top 10 Autofilter dialog box, click OK.
5. Click the column A filter dropdown and select Sort Z to A.
6. Save and close your document.

Project 6-2: More Sorts

In this exercise you'll create a custom sort for your database.

1. Open the exercise file 6-2-source and save your document as project_6-2_sorting.
2. Click Data > Sort & Filter > Clear, then Unhide column B.
3. Open the project file state_reps and copy column A.
4. Paste the copied column into your working document.
5. Select cell D1, select Data > Filter, then reselect it.
6. Click Data > Sort.
7. On the first sort line, sort by Reps, from largest to smallest.

8. Add a Level. Sort by Population, smallest to largest. Click OK.

   This sort uses state population as a "tiebreaker" when two states have the same number of representatives.

9. Save your work and close all open files.

Proficiency Assessment

Project 6-3: Extracting Records

In this exercise you'll extract a handful of records meeting specific numeric criteria.

1. Open the exercise file 6-3-source and save your document as project_6-3_extracting.
2. Clear the filter/sort settings for the worksheet.
3. Add the heading Residents/Rep to column E and AutoFit the column's width.
4. In E2, add a formula that divides the state's population by its representative count.
5. Format E2 as a Number, comma style, with no decimal spaces. Use AutoFill to apply the E2 formula/formatting to the whole column.

   Note that District of Columbia shows a "divide by zero" error in this field.
6. Copy A5:D5 to I7:M7.
7. Type >5000000 in K8 and <600000 in M8.
8. Click anywhere in the main dataset and select Data > Sort & Filter > Advanced.
9. Select Copy to Another Location, use I7:N8 for the Criteria range, and Copy to: I12. Click OK.

   Excel automatically uses the main dataset, A1:E52, as the List Range.
10. Save and close your document.

Project 6-4: Subtotals and Groups

In this exercise you will sort, filter, and add subtotals to a database.

1. Open the exercise file 6-4-source and save your document as project_6-4_subtotals.
2. Sort the dataset by Population, smallest to largest.
3. Click the State dropdown, and filter the list so only District of Columbia is displayed. Delete its row.
4. Clear the filter/sort info, then sort the dataset by Rank.
5. Add column F, heading Quintile.

   "Quintile" simply means "fifth": the bottom or 5th quintile is the 1/5 of the dataset with the lowest population.
6. Fill F2:F11 with the number 5, F12:F21 with 4, F22:F31 with 3, and so forth.
7. Click in the main dataset, and select Data > Subtotal.
8. At each change in Quintile, use function Average, add subtotal to Residents/Rep.
9. AutoFit column F's width.
10. Save and close your document.