HW1: Excel Basics

Covers: Chapter 2-3, Excel textbook
Due: Tues. Sept. 17, 2013 by the beginning of class.

This is an individual assignment. Refer to the syllabus for proper collaboration policies and documentation. If you submit work without a collaboration statement, your work will be assessed a 10 point penalty. After finishing your HW, make another worksheet in the same workbook as your homework. Type your collaboration statement in A1 of the 2nd worksheet.

Directions: Below is a tutorial. These are step-by-step directions that can help you learn the basics. Your textbook also includes many step-by-step examples. If you are unfamiliar with Excel, you should complete the tutorial and a few of the textbook exercises before completing the homework assignment. If you are already familiar with Excel, you can complete the assignment. You DO NOT need to submit the tutorial. It is merely provided to help you learn. Submission instructions are included at the end of the assignment.

Tutorial: Rebate Calculation Worksheet

In this tutorial you will create a rebate statement for a credit card company. The rebate statement will show amounts of different types of purchases made on a quarterly basis, rebate rate applicable to each purchase type and the amount of rebate earned for each purchase type and total rebate. Your final worksheet will look similar to the sheet shown in Figure 1.

![Figure 1: Sample worksheet for rebate calculation](image)

The steps to create the rebate calculation worksheet are:

1. Start Excel to open a new workbook. By default the workbook is named Workbook1.
2. Select Column A. Next, move the cursor towards the boundary between columns A and B. You will see cursor changing shape. Left click and drag the boundary towards the right to increase the width of column A. As you drag the cursor, Excel will display the column width information. Adjust the width to about 2.5 inches.
3. Left click on cell A1 and drag the pointer to cell A15 to select cells A1 to A16.
4. While the cells A1 to A16 remain selected, (Microsoft) left click on Fill Color button in the Font panel in Home tab or (Mac) select Cmd-1 to bring up the Format Cells dialog window and click the Patterns tab. Excel will show you a color pallet to choose from. Select any color of your choice to fill the cells A1 to A16.
5. While cells A1 to A16 are still selected, click on (Microsoft) Merge & Center button in the Alignment group of buttons in Home tab or (Mac) Merge button in the Alignment group in the Formal dialog window. This action will merge cells A1 to A16 in one cell. Excel references the merged cell as cell A1.
6. Type in the name of a fictitious company into A1.
7. To position the text Quantum Cards at an angle in the middle as shown above, (Microsoft) click the Middle Align button in the Alignment group of buttons. This action will vertically align the text by placing it in the middle between the top and bottom of cell A1. Next, click the Center alignment button to horizontally align the text. Now locate the text orientation button in the top right corner of the Alignment group of buttons. Click the Orientation button and select Angle Counterclockwise as your desired orientation. (Mac) From the Format dialog (opened by pressing Cmd-1), click the Alignment tab. Select the Center option under both the Vertical and Horizontal options in the Text Alignment panel in this window. In the Orientation panel, change the angle of the text by either clicking on the rotate icon or entering a numerical angle. In the example, the text is rotated at 60 degrees. At this stage you should have the text appearing in your worksheet similar to above.
8. Select cell B1 and drag mouse to select cells B1 to G3. Merge all of these cells.
9. Type the text "Yearly Rebate Statement" in the merged cell B1. Center the text both horizontally and vertically as in Step 7 above.
10. Increase the width of Column B to about 2 inches as in Step 2 above.
11. In cell B4, enter the text "Account Number".
12. In cell C4, make up a 16 digit account number and enter the text string in the format "XXXX-XXXX-XXXX-XXXX".
13. In cell B5, enter the text "Card Holder's Name" and in cell C5 enter a made up name.
14. In cells B7 to H7, type the column headings as shown in the figure above. Adjust the column widths to ensure headings fit in each cell.
15. Type row headings as shown in cells B8 to B13.
16. In cell G15, enter Total Rebate, and fill cell H15 with the same color you chose to use in cell A1.
17. Select cells B7 to H7 and (Microsoft) click Borders button in the Font panel in Home tab. From the list of options for borders, select the Outside Borders option or (Mac) click the Borders button after bringing up the Format dialog window (Cmd-1). Select the Outline option in the Presets panel.
18. Select cells B16 to H16. (Microsoft) Click Borders button and select the Bottom Border option. (Mac) Click the Borders button in the Format dialog window (Cmd-1 to open). Then click the button in the Border panel which shows the border placed under the text/cells only. Similarly, generate the other cell borders as shown in the figure.
19. In cells C8 to F8, fill the amounts as shown. For cells, C9 to F13, make up some suitable amounts and fill them in.
20. In cells G8 to G13, enter the rebate rate percentages as shown.
21. Now you are ready to write formulas to do the needed calculations. The rebate amount in cell H8 is given by the sum of amounts in cells C8 to F8 multiplied by the percentage in cell G8. Thus, enter the formula = (C8+D8+E8+F8)*G8 in cell H8.

22. Copy the formula entered in cell H8 and paste it into cells H9 to H13.

23. The total in cell H15 is the sum of rebates in cells H8 to H13. Thus, enter the formula =H8+H9+H10+H11+H12+H13 in cell H15.

24. You will find that cells H8 to H13 and H15 show the amounts with more than two decimal places. (Microsoft) Use the Decrease Decimal button from the Number panel of commands to decrease the number of decimal places to two. (Mac) Open the Format dialog and select the Number button. Select the Number option under Category. Set the decimal places to 2.

25. Save your worksheet if you wish to. You SHOULD NOT submit this file.

**Homework Exercise: Weekly Sales Report Worksheet**

In this exercise you will create a weekly sales report for a store that employs several salespersons. The report shows the sales made by each salesperson on a daily basis. It then calculates the total and the commission for each salesperson. Your worksheet should look similar to Figure 2 but with the correct commission calculated. Once you have reached this stage, proceed with the extra directions below.

![Figure 2: A sample worksheet for commission calculation.](image)

1. Unlike the spreadsheet above, you should put zeros into your spreadsheet to indicate days without any sales.

2. Add an additional column between columns I and J and title the column “Commission Rate”.

3. Write a formula to calculate the total sales for each sales person.

4. Each salesperson can have a different commission. Write a formula to calculate the commission due a salesperson based on their commission rate. You should not “hard code” the commission rate into the formula. Rather, you should retrieve it from the appropriate cell for each salesperson.

5. You should enter data (for both the sales and commission rates) which tests all of your calculations (the total sales and the commission due the salesperson) and ensures they work appropriately.

Save the file as hw1-lastname.xlsx and submit it to Blackboard for HW1. Don’t forget your collaboration statement.