EXCEL INDEPENDENT PROJECT C INSTRUCTIONS

This project is not found in your book. Use what you have learned so far in the course and apply critical thinking skills to stretch the limits of your knowledge. Read the assignment instructions carefully below or from Excel_Independent_Project_C_Instructions.pdf. Compare your results to the grading rubric before submitting.

Open the IPC_Shoes.xlsx file. Save the file as Lastname_Firstname_IPC_Shoes.xlsx.

You work for a shoe manufacturer and have been given the task of analyzing the break-even point based for several revenue and expense scenarios. Currently, you manufacture water proof sandals that cost you $10 to make. You sell the sandals for $13. Your fixed overhead (rent, utilities, insurance, etc.) is $30,000 per month. You would like to calculate your break-even point based on the current values and then analyze what happens if you increase your sales price, decrease your manufacturing cost, or decrease your fixed monthly expenses. (If you haven't had a business class before, then try googling Break Even Analysis for an overview of the concept. The lower the break even point, the faster a business will make money.)

Create an appropriate range name for each of the following cells: B3, B4, B5 and B6. For example, B3 might be named PriceperUnit, B4 CostperUnit, B5 FixedExpenses and B6 BreakEvenPoint. Use the range names as you create the formulas below.

In B6, enter a formula to calculate the break-even point. (Hint: For every pair of shoes you sell, you are currently making a profit of $3 ($13 Sales - $10 Cost). If you take the fixed overhead of $30,000 and divide it by $3, then you would find that you have to sell 10,000 pairs of shoes to break even. Be sure to use the range names for B3, B4 and B5 in your break-even formula. Remember the order of operators as explained on page 95 so use parentheses if needed to make the subtraction happen before the division.

Next, you'd like to look at some projections for Revenue and Expenses if you make between 0 and 20,000 pair of shoes. You have already determined that this is your manufacturing limits based on your fixed monthly expenses.

Use formulas to calculate the Total Revenue and Total Expenses for the various Units Sold in the table. Total Revenue is the Sales Price per Unit times the Units Sold. Total Expenses is the Fixed Monthly Expenses plus the Manufacturing Cost per Unit times the Units Sold. (Hint: You can create a one way data table or you can simply use formulas with absolute cell references where needed and copy them down.)

Add a Break Even line chart to show the relationship between Units Sold, Revenue and Expenses. When the lines intersect on the chart, you have the break-even point. Place the chart on the Break Even Analysis sheet. Resize and format as needed so the results are professional looking and the data and chart are ready to print. (Hint: Select A14:C55 as your source data range and look at the recommended line charts. The Units Sold should be

on the horizontal axis. You should have one line for Revenue and one line for Expenses and the two lines should intersect.)

Now, let's try some running some different scenarios using the **Scenario Manager**! Add the following four scenarios. Set B3:B5 as the changing cells and use the values given in the table below:

Scenario Name	Changing Cells: B3	B4	B5
Current	13	10	30000
Increase Sales Price	**14**	10	30000
Decrease Mfg Cost	13	**8**	30000
Decrease Overhead	13	10	**25000**

Show each Scenario. Then create a Scenario Summary using **B6** as the result cell. What happens to the break even points (units sold) in each scenario? As a manager, which scenario would you try to make happen if they were all possible? Why? Type your answers in a blank row below the results shown on the Scenario Summary sheet.

Set all sheets to print professionally. Add a header on all sheets with your name, the file name and the sheet name.

Be sure to save your work when finished.

Grading Rubric for Independent Project C:

Description	Points
All sheets are formatted professionally. Numbers are right aligned and formatted with appropriate number style. Borders, colors, fonts etc. are used appropriately so data is clear and easy to read.	5
All sheets are set to print. Headers with name, filename and sheet name are included on all sheets.	5
Range names added for B3:B6 and used in formulas.	10
Break-even formula entered in B6.	10
Revenue added in B15:B55 using formulas or a data table.	10
Expense added in C15:C55 using formulas or a data table.	10
Break-even line chart created, resized and formatted.	15
Four scenarios added using Scenario Manager.	20
Scenario Summary Report added with B3:B5 as changing cells and B6 as the result cell.	10
Scenarios analyzed and conclusions entered in blank row on Scenario Summary sheet.	5
Total Points	**100**

After completing the assignments, attach the Lastname_Firstname_IPC_Shoes.xlsx and submit for grading.