1

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

40 pts. Open the **CBL2011.xls** file somewhere on your system. This is the statisitics for the Continental baseball league. We will use this spreadsheet to work with the new table construct. In addition, a team name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is written here and that is what you wxill concentrate on later in this question.

Now, the math that is the underlying problem pertains to statistics that relate to the leagues most valuable player award. The award cannot go to someone with less than 400 at bats. With 400 at bats, a calculation need to be performed that sums up all the hits (**homers +triples+doubles+singles**) and subtract 3 times the **errors** (3\*errors).

1. So, let’s set this “table” stretching from A1 through M121 as a new table construct.
2. Create a new column, call it **MVP points**, to do the above calculation. Use an if statement to determine if the corresponding number in column D is above (or equal) 400, do the calculation of the sum of the corresponding columns of F,G,H and I and subtract 3 time the corresponding column M.

Now, the individual with the most **MVP points** wins the individual MVP trophy. Sort this new column so that you can show this and record it here:

1. MVP player of the year:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Points that win: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Now, given the team name above, set filtering so that you are only showing players of that team name.

1. Further, show only the players of that teams name that bat Left handed. (this is a double filter). In the table below indicate the top left handed hitter as far as MVP points are concerned

|  |  |
| --- | --- |
| Last Name | MVP Points |
|  |  |

1. Now, repeat this process with the team’s right handed hitters. In the table below, indicate the top two right handed hitters as far as MVP Points are concerned

|  |  |
| --- | --- |
| Last Name | MVP Ponts |
|  |  |
|  |  |

1. Now, let’s run a pivot table off this data. Determine the teams name and the sum of the **MVP points.**
2. Sort this so that we see a reverse order for MVP points. The team with the highest total **MVP points** wins the prestigious Rauer Cup (named for the leaque’s first statistician).
3. Now, don’t forget to draw a pivot chart showing the results of the pivot table visually.

**Save your file. Sometime during the test, Email this as an attachment to** [**777rauer@voicenet.com**](mailto:777rauer@voicenet.com) **or put it on your instructor’s flash memory.**

2

20 pts.On your computer somewhere is a file designated as **cpi.xlsx**. Open this up. This shows a consumer price index since 1960. In 1960, this number was 29.3. Today it is over 220.

You can determine the price differential between years by dividing a constant factor throughout the years which is what we plan to do.

1. Set column headers to **Year** for the first column and **CPI for year** for second column. Make provision for a third column (column C) which we will designate as **Price increase since 1960.** Use the wrap text feature of alignment to set these headers by increasing the height of the first column.
2. Notice some alignment problems in the columns. Please fix these appropriately
3. Onto the math. This involves the creation of column C. We need to divide the number designated as b51 (the CPI index as set for 1960) into every number in column B and set these numbers into the appropriate cell in column C. But, in doing this, we always need to point at b51. This is absolute addressing. Do this calculation using absolute addressing as shown in class. To help you, if you do this right, the number for 2011 is 7.390034 and 2.93 for 1981..

Now, look at column B. Dividing any two successive years gives you the CPI for that year. 1980 is 77.8, 1979 is 68.3. 77.8/68.3 = 1.139. Subtract 1 and multiply by 100 and you get 13.9. Inflation grew at that rate for the period between 1979 and 1980. Historically, this was the oil embargo and increases in oil prices resulted in inflation. Look at 2008 through 2009 and you will see prices didn’t really go up. This was the financial meltdown of 2008 which dampened inflation considerably.

1. So, we want to indicate where inflation jumped at least 10% for a year. Using if statements and column D, do this calculation and when it is true that the calculation produces a figure equal or higher than 1.10, indicate in that cell that inflation was **Over 10%**. If not over 1.10, indicate a 0 or null (which you can show by two double quotes). Note:to display text in excel, surround the text by double quotes so we would have "over 10%". The null would be typed in a ""

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3

45 points. Open the file **bond,james bond.xlsx** (sorry, I couldn’t resist). This lists the James Bond movies in chronological order of release. You see the star of the movie (this would be the actor playing James Bond,), The **US box office** which we will not be using, the **worldwide box office**, the **production cost** and the **inflation factor to 2008** similar to what you were calculating in the last problem (and quite frankly, since I needed to find and calculate these figure, the result was problem 2 for this test).

We are going to calculate the **total profit** (**world wide box office** – **production cost**) in 2008 dollars and run both a pivot table and subtotals determining who was the most popular actor in terms of financial gains.

1. To start this, create a new column, **net profit**, subtracting **production cost** from **world wide box office.**
2. We need to set this to 2008 dollars. Multiply **net profit** by **inflation factor to 2008** to a new column designated as **2008 net profit.** This is the column we will be using to determine the answer to our question.
3. Create a pivot table on a new sheet which looks at the actors and determines their total **2008 net profit** for all the movies they starred in. This will be a one dimensional pivot table.
4. Sort this pivot table appropriately and you have the answer to our question: Who was the most popular James Bond, at least by financial standards? Formatting the numbers wouldn’t be a bad idea either.
5. Let’s set up a pivot chart to visually document this.

Remember, in class, we said that once a pivot table is set, underlying changes to the initial spread sheet would have no effect on the pivot table. Make sure that your pivot table is as best as you can make it because we are about to change the underlying spreadsheet in sheet 1.

1. In sheet1, we are going to create subtotals. We need to prep this sheet for such. To determine the profitability of the movies per each actor, we need to get the films of the actor together. Do this on your spread sheet. (note: This is the prep that is not necessary in doing a pivot table and why many consider pivot tables to be much easier than subtotals).
2. Invoke subtotals (on the data tab) creating subtotals in **2008 net profit** for each break (change) in the actor. We should see only subtotaled numbers: the actors name and the **2008 net profit** totals of profitability of all his movies.
3. Now, sort this so that the actor who was the most profitable is seen first, the actor least profitable seen last.
4. Create a column/bar chart showing this visually.

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