

COMMUNITY COLLEGE OF SOUTHERN NEVADA
Department Of Computer Information Technology
IS-101

(Mr. Harden's Sections)

ASSIGNMENT #11

OBJECTIVES & PURPOSE:

The purpose of this assignment is to become familiar with electronic spreadsheet features and techniques including:

- Designing and laying out a spreadsheet;
- Using label, numeric, and formula cells;
- Formatting cells;
- Printing regular and formula printouts;
- Saving and retrieving spreadsheets;
- Using Absolute and Relative cell referencing;

SPECIFICATIONS & INSTRUCTIONS:

PLEASE NOTE:

- To receive full credit, all specifications must be meet.
- Read the **NOTES** at the bottom of the assignment before continuing;
- Learning how to do this assignment:
 - The following descriptions are the specifications for the assignment;
 - *They are not a tutorial on how to do the assignment;*
 - Discussion and demonstration on how to do the assignment will be given in class on the demonstration day for this assignment (please attend class that day for the demonstration);
- Use Microsoft's **Excel** spreadsheet. If any other spreadsheet other than **Excel** is used, it may not behave in the same manner as demonstrated with **Excel**.

Prepare a spreadsheet using Microsoft's **Excel** which records, tracks, and calculates gasoline fillups and miles per gallon. Use the spreadsheet in the sample provided with its recorded data. Program the formulas required to calculate the data in the remaining cells. To receive full credit, the spreadsheet must meet the following specifications:

1. All column headers are to be right aligned except "Date" which should be center aligned.
2. **DATE** (Column "A"):
 - Enter the dates given as shown in the sample. Enter your own dates in where no dates are given in the sample.
 - Must be in "date" format in which the spreadsheet program prints in the form of "January 15" (or similar);
 - Must be right aligned.
3. **PRICE PER GALLON** (Column "B"):
 - Enter the Prices Per Gallon given as shown in the sample. Enter your own Prices Per Gallon where no Prices are given in the sample. The price on each fillup must be different.
 - Must be formatted as currency, 3 places to the right of the decimal (such as \$1.399).
 - The row *Totals & Averages* for this column must be the average of all the above recorded prices (Use the average function).
4. **FILLUP GALLONS** (Column "C"):
 - Enter the Fillup Gallons exactly as shown in the sample.
 - Must be formatted as numeric, 1 place to the right of the decimal (such as 14.6).
 - The row *Totals & Averages* for this column must be the total of all the above recorded fillup gallons (use the sum function).
5. **TOTAL PRICE** (Column "D"):
 - Must be calculated as the price per gallon times the fillup gallons;
For example, the formula on the 15th row of this column would be:
=B15*C15
 - Must be formatted as currency, 2 places to the right of the decimal (such as \$15.45).
 - The row *Totals & Averages* for this column must show the average of all the above total prices (use the average function).
6. **MILEAGE** (Column "E"):
 - Enter the Mileages exactly as shown in the sample.
 - Format as numeric, no places to the right of the decimal (such as 5280).

- The row *Totals & Averages* for this column must show the total miles driven, i.e., the final mileage recorded less the first mileage recorded.

7. FILL-UP MILES/GAL (Column "F"):

- Must be calculated as the mileage driven since the previous fillup divided by the gallons pumped in the current fillup;
For example, the formula for the 15th row on this column would be:
 $= (E15 - E14) / C15$
- Must be formatted as numeric, 2 places to the right of the decimal (such as 17.25);
- The row *Totals & Averages* for this column must be the average MPG for this column (use the average function).

8. ACCUMULATIVE MILES/GAL (Column "G"):

- Must be calculated as the mileage driven since first mileage reading divided by all the gallons pumped in the car through the current fillup;
For example, the formula for Row 15 of this column would be:
 $= (E15 - E11) / \text{SUM}(C12:C15)$
assuming the first mileage reading is on row 11, and the first fillup is in Row 12.

HINT: If a formula in this column is to be copied, absolute cell referencing would be helpful. The formula in G15 would actually contain both relative and absolute cell referencing, and could be expressed as:

$$= (E15 - \$E\$11) / \text{SUM}(\$C\$12:C15)$$

assuming the first mileage reading is in Row 11, and the first fillup is in Row 12.

- Must be formatted as numeric, 2 places to the right of the decimal.
- The row *Totals & Averages* for this column must be calculated as the total miles driven from first mileage reading through the last fillup, divided by the total of all gallons pumped from the first fillup through the last fillup.

9. CHART: Use the Chart Wizard to include a chart below the spreadsheet that uses either a Line Graph or an Area Chart.

- Chart the Fill-up Miles/Gallon (Column F) as one series and the Accumulative Mile/Gallon (Column G) as the second series.
- DO NOT select a chart type that stacks the two series, but is graphed to show their actual values.
- DO NOT chart the *Totals and Averages* figures in Columns F & G; they will distort the chart.
- Label the two series:
 - *Series 1* is labeled as "Fill-Up MPG".
 - *Series 2* is labeled as "Accumulative MPG".
- Other chart labels (if using a 3-D Line or Area Chart) are:
 - *Title* is: "GAS MILEAGE HISTORY".
 - *X-Axis* is: "Fill-Up #".
 - *Y-Axis* is: no label.
 - *Z-Axis* is: "MPG".

ASSIGNMENT SUBMISSION:

Include the following hardcopies (printouts) on seperate pages stapled together in the order given below as your assignment:

1. The regular spreadsheet printout (with the chart included on the same worksheet page);
2. The formula printout.

NOTES:

- All specifications must be met to receive full credit.
- Use Microsoft's **Excel** spreadsheet. If any other spreadsheet other than **Excel** is used, it may not behave in the same manner as demonstrated with **Excel**.
- The formula printout may appear on several pages. This is normal, and do not be alarmed by it.

[Click Here To See Sample Of This Assignment](#)

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