

Use Microsoft Excel 2010 to produce the following worksheet. The column letters and row numbers that appear below are there to clarify expected location of the data, but are not to be entered as data by students.

	A	B	C	D	E	F	G	H	I	J
1	Auto Pricing Analyzer									
2										
3	Annual Interest Rate:		6.90%							
4										
5	Vehicle	Vehicle	Model	Sticker	Customer	Loan	Loan	Loan	Vehicle	Monthly
6	Make	Model	Year	Price	Downpmt.	Months	Principal	Interest	Final Cost	Payment
7	Ford	F150-XLT	2005	\$18,765.00	\$1,500.00	60	\$17,265.00	\$5,956.43	\$24,721.43	\$339.10
8	Jeep	Liberty Sport	2005	\$16,543.00	\$1,000.00	48	\$15,543.00	\$4,289.87	\$20,832.87	\$369.35
9	Honda	Odyssey LX	2006	\$24,321.00	\$2,000.00	60	\$22,321.00	\$7,700.75	\$32,021.75	\$438.41
10	Jaguar	X-Type	2006	\$23,210.00	\$0.00	48	\$23,210.00	\$6,405.96	\$29,615.96	\$551.54
11	Volvo	S60T	2006	\$26,149.00	\$2,000.00	36	\$24,149.00	\$4,998.84	\$31,147.84	\$740.29
12	BMW	325i	2006	\$31,123.00	\$0.00	48	\$31,123.00	\$8,589.95	\$39,712.95	\$739.58
13	Averages:			\$23,351.83		50	\$22,268.50	\$6,323.63	\$29,675.46	\$529.71

CONSTRAINTS:

Along with the worksheet above, the workbook shall contain two related charts, shown on the following pages. Store all of these workbook objects in a single file named "autos.xlsx". The following requirements must be met:

Workbook:

- ◆ Columns A-F should contain the raw data shown in the illustration.
- ◆ Rows and cells shown with boldfaced content should be formatted to match the illustration above.
- ◆ The width of all columns should be set to 12 except for column A, C, and F, which should be set to 9.
- ◆ The text "Auto Pricing Analyzer" should be stored in cell A1, but *aligned* (NOT *merged*) to center across columns A-J.
- ◆ Cell C3 should contain an annual interest rate formatted to display as a percentage, rounded to two decimal places.
- ◆ Column G should hold formulas that calculate the financed amount (loan principal) as the sticker price less the down payment. (For all formulas, be sure to use the coordinates of the data rather than typing in the constant values themselves.)
- ◆ Column H should hold formulas that calculate the interest to be paid based on the financed amount times the *annual* interest rate from row 3, times the term in years (months/12). The formula must be written so that it will copy without requiring editing of each individual copied formula. (Hint: Review the information about "absolute" vs. "relative" referencing of cells in formulas.)
- ◆ The final vehicle cost (column I) will be the sticker price plus the interest (column H).

- ◆ The monthly payment (column J) should be calculated using the software's PMT function as follows:
 - ◆ Be sure to use consistent units of measure (months vs. years).
 - ◆ Specify the PV (present value) argument as a negative value (with a leading minus sign).
 - ◆ Use the proper Type argument option to specify that payments will be made at the *beginning* of each pay period.
- ◆ Row 6 should have a thick border (not an underline) along its bottom edge. Row 13 should have a thick border along its *top* edge.
- ◆ The average formulas on row 13 should be written to remain valid even if data rows are added or deleted.
- ◆ The worksheet cells should be formatted to display using the same alignment, decimal precision, and special symbols (\$, %, etc.) shown in the illustration above.
- ◆ Name the worksheet (tab) "VehicleData" (without quotes or spaces).

"Expenditures" Chart:

- ◆ Prepare a column chart to match the one shown in the illustration on Page 4. Use the one dimensional sub-type.
- ◆ Be sure that the legend's content is linked to the appropriate cell in the worksheet and its location matches the illustration.
- ◆ Be sure that the titles and formatting of numeric data on the axes match the illustration.
- ◆ The scaling of the chart should be automatic.
- ◆ Locate the chart on its own new sheet named "Expenditures", not as an object in an existing sheet. (Hint: This should be done using the Move Chart command on the Design ribbon beneath the Chart Tools tab, which appears only when a chart is selected).

"Comparisons" Chart:

- ◆ Prepare a *stacked* column chart to match the one shown in the illustration on Page 5. Use the three dimensional sub-type.
- ◆ Be sure that the legend's content is linked to the appropriate cell in the worksheet and its location matches the illustration.
- ◆ Be sure that the titles and formatting of numeric data on the axes match the illustration.
- ◆ The maximum scale of the chart should be set ("Fixed") to 50000 rather than being automatic.
- ◆ Locate the chart on its own new sheet named "Comparisons", not as an object in an existing sheet.

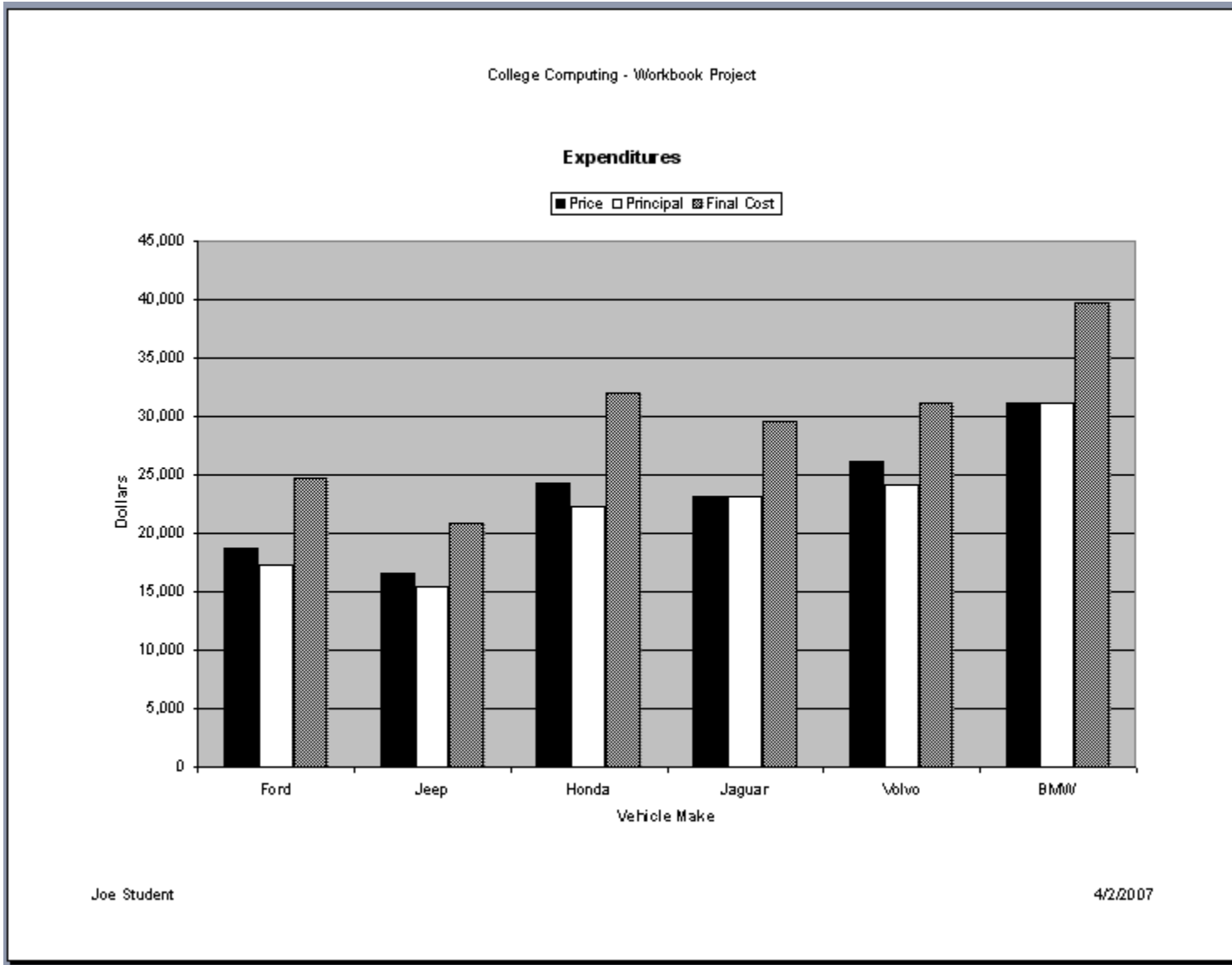
Output (Page) Formatting – for all pages (worksheet and charts):

- ◆ Set the print orientation to landscape and the page margins to 1.00 inches top and bottom and 0.75 inches left and right.
- ◆ Define *custom* headers on *all* pages as they are shown in the illustrations on pages 4 & 5.
- ◆ Define *custom* footers on *all* pages showing your name left aligned and the current date (by command) right aligned.

SUBMISSION:

[Login](#) to the IRSC Online (Angel) Server and use the "Excel 2010 Project" drop box under the "Lessons" tab to attach your workbook file "autos.xlsx" as described on the step-by-step directions at: [http:// www.gibsonr.com/classes/howto/onlinesubm.html](http://www.gibsonr.com/classes/howto/onlinesubm.html)

The chart named "Expenditures" would print (if using black and white mode) like this:



The chart named "Comparisons" would print (if using black and white mode) like this:

