The is due at the start of lab on **March 7, 2012**. Don’t forget to e-mail me your spreadsheet.

To look up commands click on the blue question mark or on the word help at the top of the spreadsheet. You can then search for commands that you might use. Here are some commands that may be useful:

**PMT**  **IF**  **ROUND**

The spreadsheet can also figure out the PV and FV for an annuity as well as a lot more things that we will not be looking at in this course.

To compute interest earned/owed you will need to know the interest rate per period (periodic rate):

\[ i = \frac{r}{m} \]

**Problem 1.** You open a saving account with $500 and then every month for the next 2 years you are going to randomly pick a dollar amount (integer values only) between $30 and $100 to deposit. The bank has different interest rates (compounded monthly) depending on the balance of the account.

<table>
<thead>
<tr>
<th>Balance</th>
<th>&lt; 800</th>
<th>≥ 800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>1.2%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Create a chart that will represent the balance of the account for the two years. Be sure you use the round command when computing interest calculations.

**Problem 2.** You are going to purchase a new truck for $35,000. Create an amortization chart that will show the payoff schedule if the length of the loan is 4 years. You will make monthly payments and the interest rate of the loan is 4.5% per year compounded monthly.

Note: there is a shortcut for computing the next two questions. ask if you want to know it.

**Question 1:** _________ is how much interest you would pay in the first year of the loan.

**Question 2:** _________ is how much interest you would pay in the second year of the loan.

**Question 3:** _________ is how much interest you would pay in the life of the loan if you added an extra $100 to each of the first 6 payments.

**Problem 3.** You are buying a house that will cost $136,000. You put 10% down and then plan to pay off the house for the next 30 years with monthly payments. The loan has an interest rate is 4.2% compounded monthly. Create an amortization table for the loan.

**Question 1:** How much interest did you pay when paying off the loan? _________

**Question 2:** You decide to make extra payments of $50 for the first 3 years of the loan.

*part i.* How many payments will it take for you to pay off the house? _________

*part ii.* The amount of extra money paid is _________ and the amount of interest that you saved over the life of the loan is _________.

**Question 2:** If you make extra payments of $50 for the life of the loan, how many payments will it take for you to pay off the house? _________

Once again e-mail me the spreadsheet showing how you solved these problems. Make sure your name is typed into the spreadsheet.