

The is due by 2pm on **October 20, 2017**. Don't forget to e-mail me your spreadsheet.

The **help menu** will show you usefull information (and sometimes an example) about the commands that you might want to use. Some of the commands that you will use for this lab are **IF**, **ROUND**, **PMT**.

The spread sheet has what is called a function wizzard. The function wizzard will help you fill out the information when typing the formulas. See my webpage for a pdf example(one for excel and one for libre) that shows how it is used.

**Rounding Information:**

DO NOT JUST FORMAT YOUR NUMBERS TO TWO DECIMAL PLACES. YOU MUST USE THE ROUND FUNCTION. OTHERWISE YOU WILL HAVE INCORRECT WORK.

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 a random dollar amount(integer values only) between \$50 and \$130 will be deposit into the account. The bank has different interest rates (compounded monthly) depending on the ballance of the account.

Ballance	< 800	$\geq$ 800
rate	2%	4 %

Create a table(chart) that will represent the ballance of the account at the end of each period for the account. The interest earned and the amount deposited each month should also be shown. 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 table 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.

Warning: Do not recalculate the payment after every month. This is a common mistake students make.

Note: There is a shortcut for computing the next three questions. Look at the webpage.

**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 years payments.

**Question 4:** \_\_\_\_\_ is the total amount of money saved by making the extra payments mentioned in question #3.

**Problem 3.** You are buying a house that will cost \$150,000. You put 10% down (make a downpayment of 10%) and then plan to pay off the house for the next 30 years with monthly payments. The loan has an interest rate of 4.5% compounded monthly. Create an amortization table for the loan.

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

**Question 1b:** How much interest would you pay if you put 20% down? \_\_\_\_\_

The rest of the questions are using a 10% downpayment.

**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 in extra payments is \_\_\_\_\_

**part iii.** The amount of interest that you saved over the life of the loan is \_\_\_\_\_.

**Question 3:** 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.