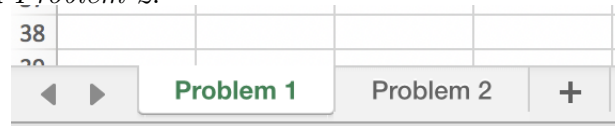


This take-home final is to be completed entirely in MS Excel, including your free responses along the way. You should have **ONE** Excel file ready to upload containing two sheets (one for each question). Label your sheets *Problem 1* and *Problem 2*.



Your goal is to keep things organized so it is easily viewed and there is a flow of work.

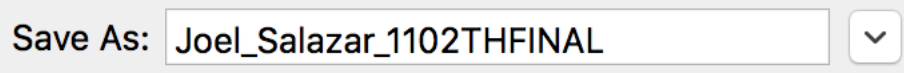
For parts 1a, 1e, 2a, and 2c you will need to make use of the **merge** and **text wrap** tools in order to have space for the free response. Do not simply type your answer in one cell, your answers should be in a range of cells. See the image below for an example of the format for answering a free response question.

	A	B	C	D	E	F	G
1							
2	A	The answer to problem 1a should go in a box that looks like this.					
3							
4							
5							
6							

Your Excel file needs to be uploaded with the file name,

FIRSTNAME_LASTNAME_1102THFINAL

for example,



If at any point you have questions, please contact me directly.

1. When purchasing a home, you are offered an APR of 4.3% for a loan within \$240,000 and \$300,000.
 - (a) Explicitly describe a unique example of taking out a fixed rate mortgage installment loan for 30-years (*i.e., how much is your mortgage and what will your monthly payment be*).
 - (b) Create an amortization table with the following headings: payment number, monthly payment, amount of monthly payment applied towards interest, amount of monthly payment applied towards remaining balance, remaining balance, and equity. This table should include all payments for the term of the mortgage.
 - (c) Create an accompanying chart which includes the remaining balance and the equity through the term of the mortgage. Appropriately labeled and large enough to view on its own.
 - (d) In your spreadsheet make use of the **SUM** function to find how much money you would have paid at the end of your mortgage.
 - (e) Discuss what you see in the chart, imagine your audience only gets to see the chart and not the table. You could imagine you are presenting this chart to someone who has not taken this course yet.

2. Consider an American Express (AMEX) credit card that you have just been approved for that charges an APR of 25.15%. On the day of approval you decided to buy groceries and household items that totaled in a charge of \$187.52. The credit card requires a minimum payment of 5% of the balance.
 - (a) Describe a scenario of your further purchases made for the next 5 months and assume that you will make payments on the card greater than the minimum required payment during these 5 months (*i.e., write up your own example*). Your balance at the end of month 5 should exceed \$650 (refer to part (b)).
 - (b) Create a table in Excel to catalog your situation using the headings: month, previous balance, payments, purchases, finance charge, and new balance.
 - (c) With your credit card balance at the end of month 5, you decide

to make no further purchases on the card and to pay only the minimum required payment from now on. How many months (from when you began paying only the minimum payment) will it take for your balance to be under \$200? Discuss/explain your solution, if you used logs, include the calculation in an appropriate cell, if you are going to use a table, include the table, etc.