

Math 3618 · Turn-in Assignment #1
Due: Tuesday, November 19, 2019

This assignment is to be turned in by one member of your group. The assignment will be partially online; make sure that the name of the group's main GitHub account is clearly legible!

2.1. Read Section 7 of the Intro to R notes on “for loops”.

2.2. On your master account “3618 projects” projects, place an R code file or R markdown file with a script that creates an amortization table, according to the following specifications:

- Start the file by writing comments explaining what you do in the script.
- Set the following values in your workspace: $n = 10$, $L = 200000$, $i = .03$
- Treat i as an annual effective rate, and convert it to a monthly effective rate with a descriptive name like `monthly_rate`. Make sure that your code will still work if you are given a different annual effective rate to start!
- Calculate the payment size of your amortizing loan and give it a descriptive name like `payment_size`.
- Create a row vector $(0, 0, L)$ to begin your amortization table and give it a descriptive name like `amortization_table`.
- Write a loop that takes the last entry of the last row of your amortization table and uses it, along with your monthly effective rate and payment size, to create the next row of your table in the format (interest paid, principal repaid, outstanding balance). This new row should be appended to the bottom of your table.
- After the loop is done, label the rows and columns of the matrix appropriately.