**RM711: Homework for Module**

1. Create an amortization schedule for a student loan that has a balance of $24,000. The annual rate is 3.45% and the payments must be made monthly. You will have 15 years to pay this off beginning 8/1/2021.
2. Use Yahoo Finance to download one year’s worth of weekly prices for the following two stocks: Tesla (ticker: TSLA) and Alphabet Inc. (ticker: GOOG). Be careful to sort the data depending on how you want the data to be displayed. Use the dates: 6/1/2020 through 5/31/2021.

Based on the adjusted closing prices, calculate each stock’s: weekly mean return (continuously compounded), and weekly standard deviation (for a sample). Then annualize the return and standard deviation.

Next, calculate the weekly covariance and annualize it. Also solve for the correlation between the two stocks.

What return (for each of the two stocks) is the cutoff for which 10% of the returns lie above it? (HINT: I’m looking for you to use the PERCENTILE function).

1. Use the LINEST function to describe the relationship between these two stocks. Treat TSLA as the Y variable and GOOG as the X variable. If GOOG stock rises by 5%, what can we expect TSLA’s stock return to be? How reliable do you think this result is?
2. Use VLOOKUP to find both stock’s prices for any day that falls within the week of your birthday. ( birthday 02/06/1988)