1. Explore Google Trends https://trends.google.com/ . Find a topic of interest to you with more than a year of trend data, and export it.
   a. Import the data into a pandas dataframe. This data probably has some junk rows. You can manually remove them from the csv.
   b. Decide whether ARMA, ARIMA, or SARIMA makes more sense for the dataset*
   c. Run either an ARMA, ARIMA, or SARIMA on it*.
   d. Briefly explain the results*
   e. Discuss your findings with your group and explain what trend someone else chose and why they chose the model they did.
2. What is a fourier transform? Perform one on y = np.cos(x/2), and both show (with code) and briefly explain the key elements.

*This is your first exposure to this material. As long as your thoughts are logical, you will do well.