**This first question is conceptual and written responses are expected. For each item below, indicate whether the appropriate method would be classification or regression, and whether we are most interested in inference or prediction. Please include a written sentence or two explaining why you made this choice. Also, indidate what n and p (predictors) are for each section.**

**(a)** A dataset contains data for 350 manufacturing companies in Europe. The following variables are included in the data for each company: industry, number of employees, salary of the CEO, and total profit. **We are interested in learning which variables impact the CEO's salary.**

**(b)** A market research company is hired to help a startup analyze their new product. **We want to know whether the product will be a success or failure.** Similar products exist on the market so the market research company gathers data on 31 similar products. The company records the following data points about each previously launched product: price of the product, competition price, marketing budget, ten other variables, and whether or not it succeeded or failed.

**(c)** Every week data is collected for the world stock market in 2012. The data points collected include the % change in the dollar, the % change in the market in the United States, the % change in the market in China, and the % change in the market in France. **We are interested in predicting the % change in the dollar in relation to the changes every week in the world stock markets.**