1. Using two quantitative variables in the homework 8 dataset, perform a regression analysis on the data to generate an R2 value and a regression equation
2. Present the variable you analyzed. Mention which value you treated as the predictor and which value you treated as the outcome.
3. Present the R2 value and interpret it.
4. Present the regression equation and interpret it.

d. Assume that the p-value for the slope was 0.24. How would this change your interpretation?

e. Assume that the p-value for the slope was 0.03. How would this change your interpretation?

1. Assume you conducted a logistic regression analysis. To analyze the relationship resting heart rate and having a heart attack (heart attack is a dummy variable, 0 = no heart attack, 1 = heart attack). Resting heart rate is the predictor variable and heart attack is the outcome. You found that the beta coefficient is 1.2 and the R2 value is 0.76.

a. How would you interpret the beta coefficient?

b. How would you interpret the R2 value?

c. Assume that the p-value for the beta coefficient was 0.24. How would this change your interpretation?

d. Assume that the p-value for the beta coefficient was 0.03. How would this change your interpretation?

1. . For each of the following research questions, determine whether correlation, linear regression, multiple regression, or logistic regression is best suited to answer it.

a. What is the strength of the relationship between the speed with which a runner completes a one mile run and their resting heart rate?

b. What percent of the variation in resting heart rate is explained by the speed with which a runner completes a one mile run?

c. What percent of the variation in resting heart rate is explained by the speed with which a runner completes a one mile run and the runner’s body mass index (BMI)?

d. What is the odds of having a resting heart rate below 1 according to the speed with which a runner completes a one mile run?