

# Stat 185 - In class problems

Wednesday, September 13

1. Figure 1 shows several scatter plots.
  - (a) Classify the relationship between the variables as: strongly linear, moderately linear, weakly linear, non-existence, or strong but non-linear.
  - (b) Match the scatter plots with their correlation from below:
    - $-0.666$
    - $0.776$
    - $-0.0467$
    - $-0.941$
2. In our outline notes on Scatter plots and correlation (<https://goo.gl/ZAoR79>), we used some data from the CDC to examine the relationship between height (in inches) and weight (in pounds) of men. We found a correlation of about 0.47.
  - (a) What does the value (both the magnitude and the sign) of the correlation tell us about the relationship?
  - (b) Suppose we measured the height in centimeters and the weight (or mass) in kilograms. What would the value of the correlation be and why?

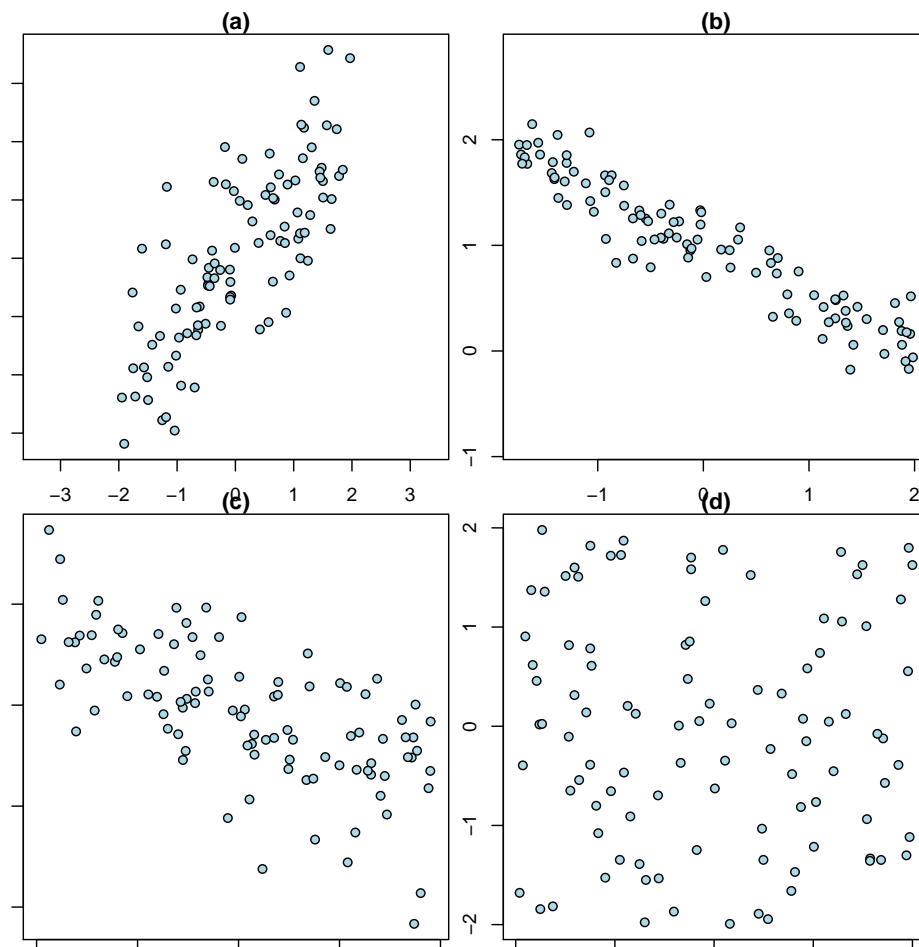


Figure 1: A few scatter plots