

STAT371-L3 Homework #1

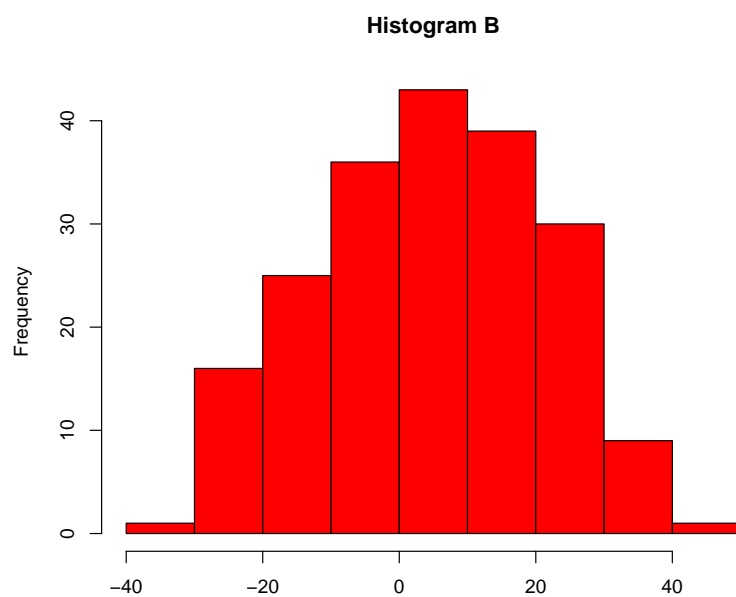
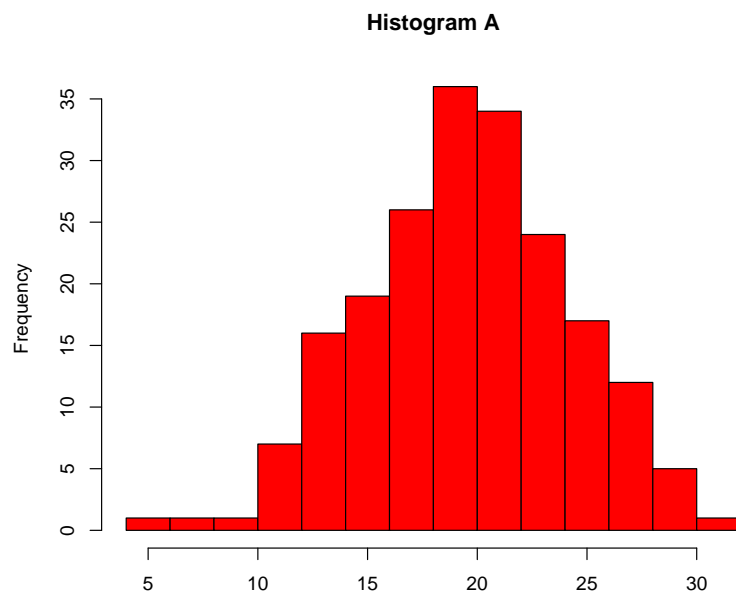
For a problem that asks you to use R, include a copy of the code and output.

1. Consider the following data on the running speed (cm/s) of a certain species of spider:

1.25, 1.64, 1.91, 2.31, 2.37, 2.38, 2.84, 2.87, 2.93, 2.94, 2.98, 3.00, 3.09, 3.22, 3.41

- (a) Use R to create a frequency histogram of the data.
- (b) Use a calculator to compute the mean and standard deviation for the data. Make sure to include units. Say what these values mean. Then use R to compute them. Do the answers agree?
- (c) Find the three quartiles for the data. Then use R to compute them. Do the answers agree?
- (d) Use R to compute the range and IQR for the data.

2. Consider the following two histograms:



- (a) Say which of the two histograms has a larger mean, or if they are about the same. Explain your answer.
- (b) Say which of the two histograms has a larger standard deviation, or if they are about the same. Explain your answer.