

## Stat 1040 Recitation packet 2

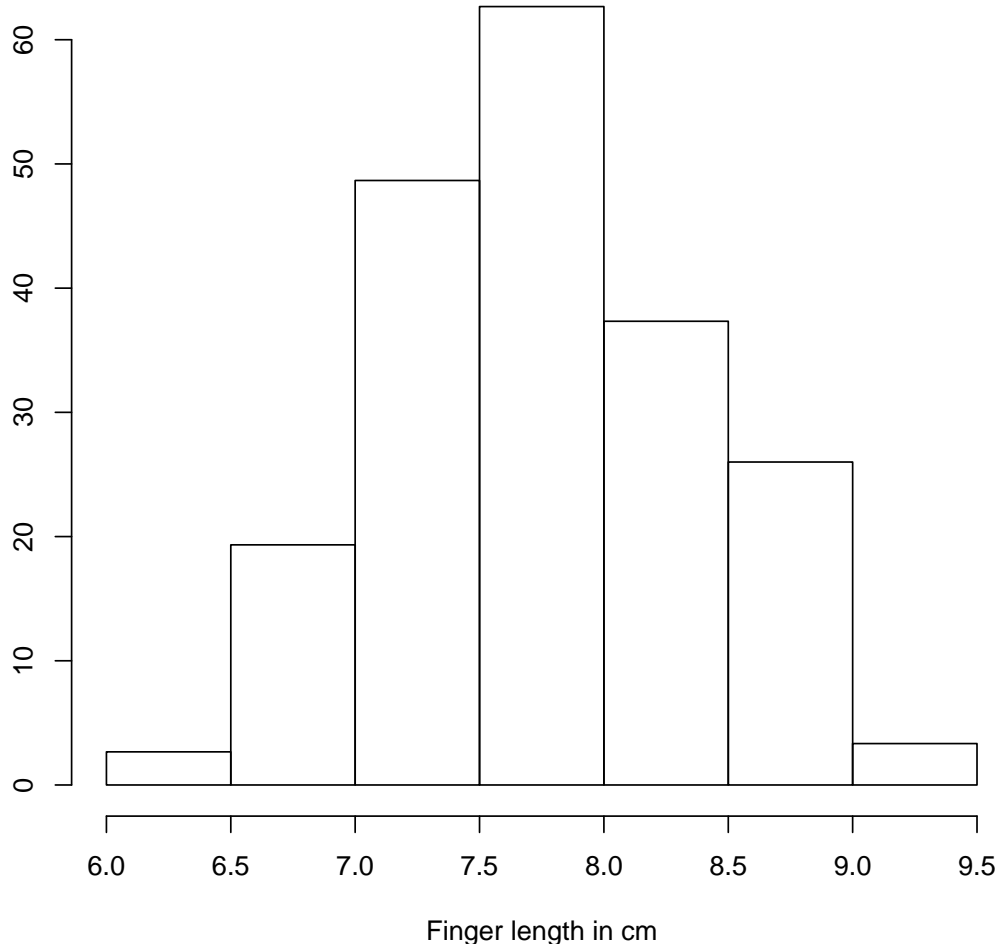
1. The following table gives the lifespans of the 38 US Presidents who are no longer alive. The class intervals include the left endpoint but not the right.

Lifespan (years)	Number of Presidents
40–60	7
60–70	12
70–80	11
80–90	5
90–100	3

- (a) Draw the histogram. Be sure to LABEL BOTH OF THE AXES.
- (b) From you histogram, what percentage of the Presidents lived more than 75 years? (Please show your work)
2. A class comprises 12 first grade students and 12 second grade students. All members of the class are given a reading test. The average for the first grade students is 45 with an SD of 15. The average for the second grade students is 75 with an SD of 15.
- (a) The average score for *the class as a whole* would be
- Less than 45.
  - Somewhere between 45 and 75 but we don't know what.
  - 60.
  - Greater than 75.
- (b) The SD of the scores for *the class as a whole* would be
- Less than 15.
  - 15.
  - Greater than 15.
3. An administrator looked at a large group of USU students and had the freshmen and seniors take an IQ test. He found that the seniors scored higher on the test than the freshmen. Is he correct in concluding that as students progress through USU their IQ's increase? Explain clearly.
4. Find the average and the SD of the following list of numbers: 22, 22, 13, 25, 8, 16, 18, 26, 12, 20, 14, 26, 14, 16, 12.
5. Find the median of the list of numbers in question 4.
6. A pediatrician has data on the heights of 25 2-year-old boys and 25 8-year-old boys. The heights of the 2-year-old boys have an average of 34.5 inches and an SD of 1.3 inches. The heights of the 8-year-old boys have an average of 50.5 inches and an SD of 1.3 inches. If we took all 50 boys, would the SD of the heights be (circle the correct one, no explanation is required):
- less than 1.3 inches
  - equal to 1.3 inches
  - more than 1.3 inches

7. The following histogram summarizes the finger lengths of 300 men. Class intervals include the left endpoint but not the right.

**Histogram of Finger Length**



- (a) Label the vertical axis.
- (b) Using the histogram, what percentage of the men have fingers that are less than 7.5 cm long? Show your work.
- (c) Using the histogram, in which interval is the 80th percentile? Show your work.