Analyzing Statistical Data Day 4 Notes

I. Measures of Central Tendency

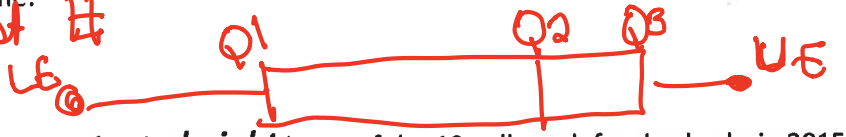
1. How do you find the mean (average) of data? Add #'s and divide by the # of data samples
2. Find the average height in cm of top college defensive backs in 2015. 71.45
3. How do you find the median of data? List #'s from least to greatest. Find the middle #
4. Find the median height in cm of the top 20 college defensive backs in 2015. 71.5
5. How do you find the mode of data? The most occuring #
6. Find the mode in cm of the height of the top 20 college defensive backs in 2015 72
7. How do you find the range of data? Subtract the lowest from highest
8. Find the range of the data

69 69 69 70 70 70 71 71 71 71 72 72 72 72 72 73 73 73 74

II. Box and Whisker Plots

a. Five Point Summary:
   i. Lower Extreme Smallest #
   ii. Q1 Median of the 1st half of the data
   iii. Median
   iv. Q3 Median of the 2nd half of the data
   v. Upper Extreme: Largest #
   vi. Shape:

25% 75% 75%



b. Find the five point summary for the ***height*** in cm of the 19 college defensive backs in 2015 and create a Box and Whisker Plot.
   i. Lower Extreme 69
   ii. Q1 70
   iii. Median 71.5
   iv. Q3 73
   v. Upper Extreme: 75
   vi. Shape:

25% data is below 70
50% data is below 71.5
75% data is below 73

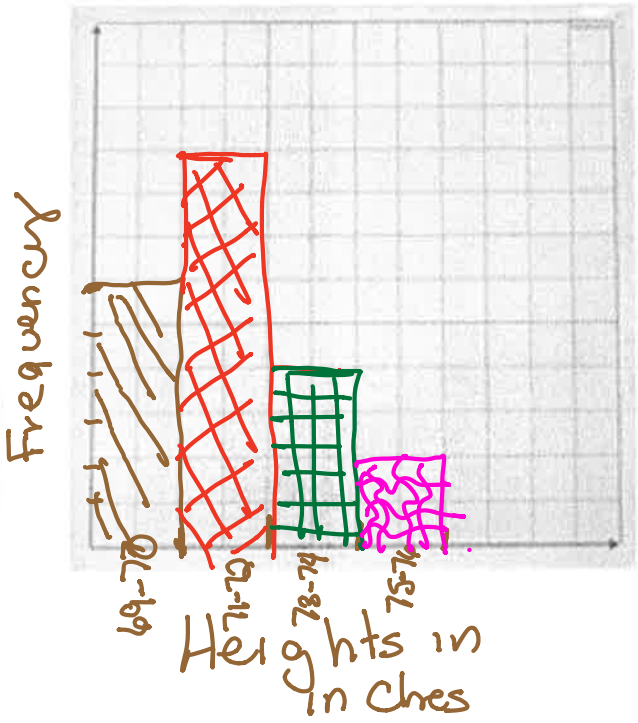
Notes

III. Histogram and Frequency Table

i. Choose a width for you data
ii. Create a frequency table
iii. Graph the data as a bar chart except bars should be adjacent with one another
iv. Label your axis

b. Create a histogram and a frequency table for the height in cm of the 19 college defensive backs in 2015

2015 Defensive Backs Height



Weight	Frequency
69-70	6
71-72	9
73-74	4
75-76	1

IV. Stem and Leaf plot

a. The stem will be the hundreds column (depending on size of your data) and the leaves will be the tens column
b. Create a key
c. Create a stem and leaf plot for the height in cm for the 19 college defensive backs in 2015

2015 Defensive Back Heights

6	9 9 9
7	0 0 0 1 1 1 1 2 2 2 2 2 3 3 3 4 5

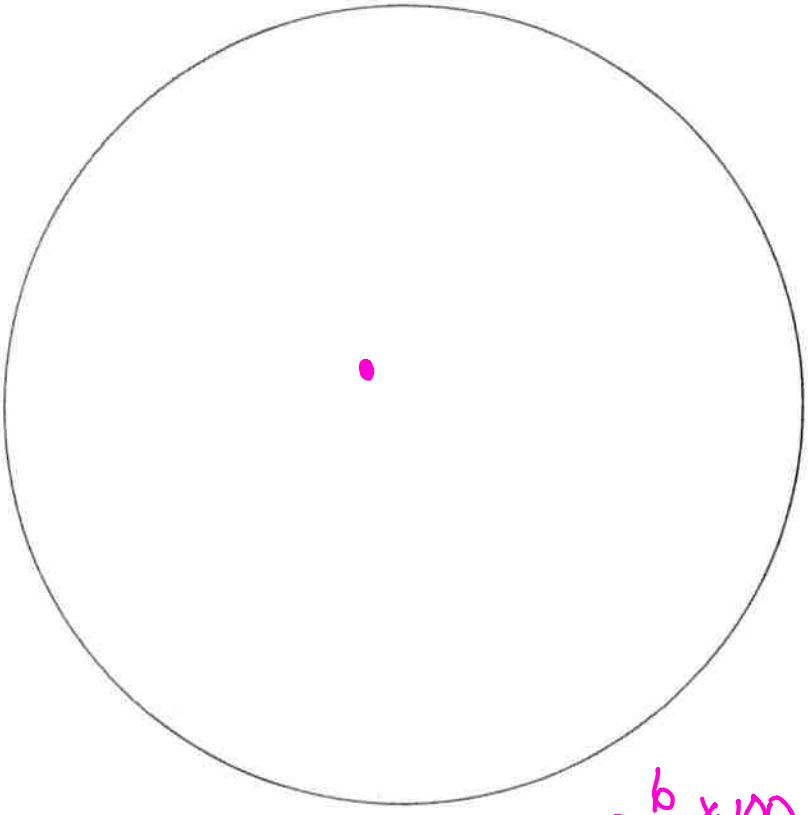
Key
6|9 = 69

Notes

V. Pie Chart

a. Using the frequency table, find the percentage of each categorize
b. Find the angle represented by each category (multiple the % by 3.6)
c. Create a pie chart using the frequency table created in part III
d. Color each section and make a key

$\frac{\text{Freq}}{\text{Total}} \times 100$



Width	Frequency	%	Angle (% x 3.6)
69-70	6	30%	108
71-72	9	45%	162
73-74	4	20%	72
75-76	1	5%	18

Total 20 100% 360

$\frac{6}{20} \times 100$ $\frac{9}{20} \times 100$ $\frac{4}{20} \times 100$

VI. Line Plots

a) Create a number line on the horizontal axis to include the range of your data
b) For each data item represented for the point, add an x in the vertical direction.
c) Make a line plot to represent your data