Advanced Functions – 3.3 WS: Data Displays Name: Key

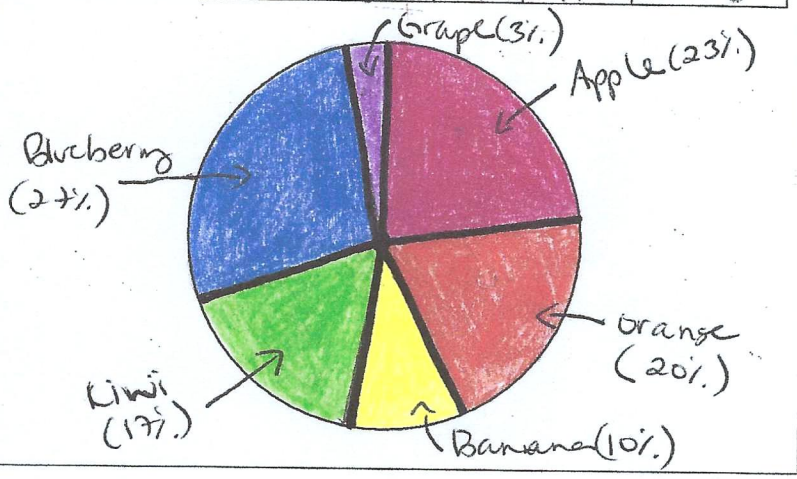
I. Using the given data – Make a pie chart and a bar graph of the information. You must use different colors and label within the displays.

1.) A survey at a local mall was taken about people favorite types of fruit. Below is what was found:

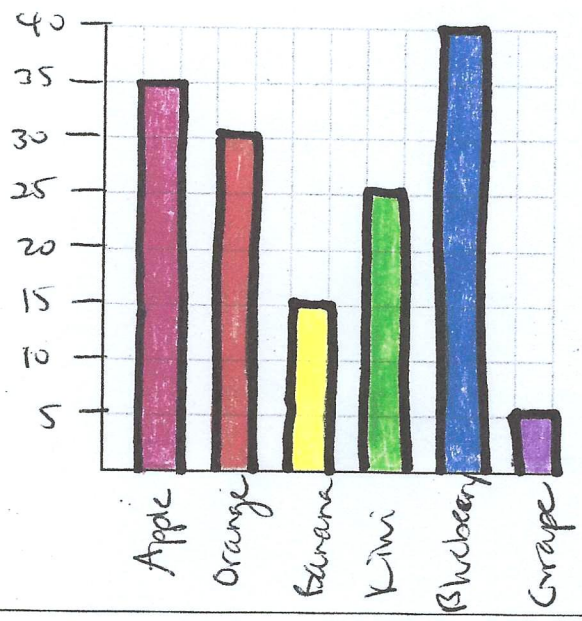
apples	oranges	bananas	kiwifruit	blueberries	grapes
35	30	15	25	40	5

Data Display # 1 – Categorical: Pie Chart

apple	orang	bana	kiwi	blue	grape	Total
35	30	15	25	40	5	150
23%	20%	10%	17%	27%	3%	100%
83°	72°	36°	61°	97°	11°	360°



Data Display # 1 – Categorical: Bar Graph

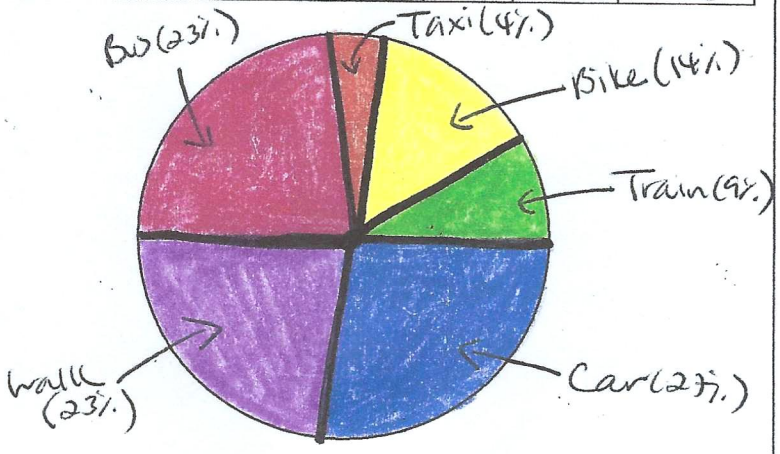


2.) Connor surveyed his Biology class to see how they got to school. Below are his survey results:

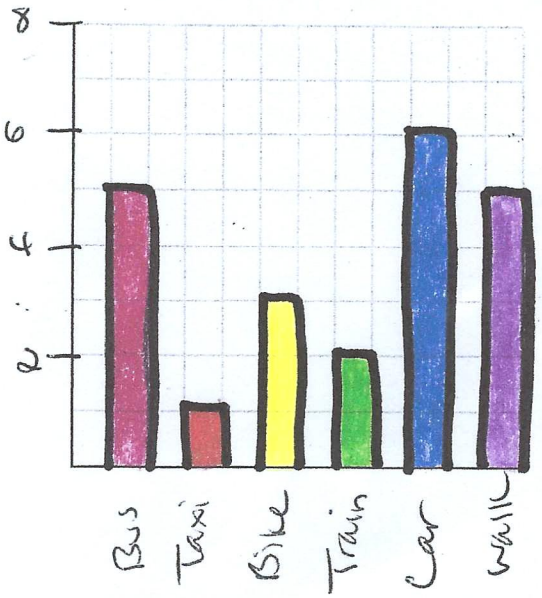
Bus	Taxi	Bike	Train	Car	Walk
5	1	3	2	6	5

Data Display # 1 – Categorical: Pie Chart

Bus	Taxi	Bike	Train	Car	Walk	Total
5	1	3	2	6	5	22
23%	4%	14%	9%	27%	23%	100%
83°	15°	50°	32°	97°	83°	360°



Data Display # 1 – Categorical: Bar Graph



II. Using the given data – Make a stem-leaf plot and/or a box-whisker plot of the information. Make sure your box-whisker plot is labeled and graphed accurately and correctly.

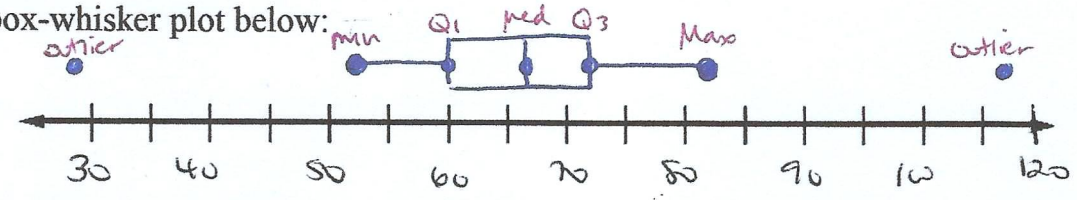
3.) The table shows the number of sacrifice hits made by teams in the NBL in the 2001 season.

Team	Home Runs	Team	Home Runs
Arizona	71	Milwaukee	65
Atlanta	64	Montreal	64
Chicago	117	New York	52
Cincinnati	66	Philadelphia	67
Colorado	81	Pittsburgh	60
Florida	60	San Diego	29
Houston	71	San Francisco	67
Los Angeles	57	St. Louis	83

a.) Make a stem-leaf plot below:

Steam	Leaf
2	9
3	
4	
5	27
6	0044567 7
7	11
8	13
9	
10	
11	7

b.) Make a box-whisker plot below:



min = 52
Q_1 = 60
med = 65.16
Q_3 = 71
max = 83
IQR = 11
LB = 60 − 1.5(11) = 43.5
UB = 71 + 1.5(11) = 87.5

4.) The stem-and-leaf plot below shows Charmaine's scores for her favorite computer game.

Stem	Leaf
9	0 0 0 1 3 4 5 5 7 8 8 8 9 9
10	0 3 4 4 5 6 9
11	0 3 9 9
12	1 2 6
13	0 *12|6 = 126*

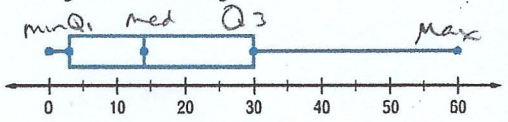
a.) What are Charmaine's highest and lowest scores?
130 and 90

b.) Which score(s) occurred the most frequently?
90 and 98

c.) What percent of Charmaine's scores were above 115?
$\frac{6}{29} = 20.7\%$

d.) Has Charmaine ever scored 123?
NO.

5.) Tyler surveyed 20 randomly chosen students at his school about how many miles they drive in an average day. The results are shown in the box-and-whisker plot.

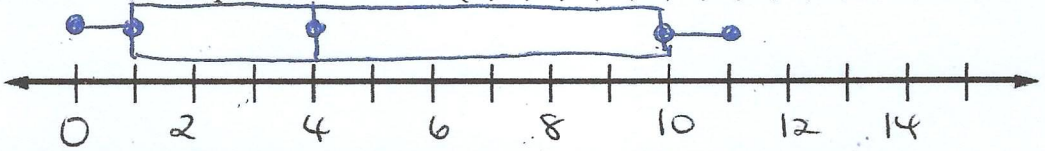


a.) What percent of the students drive more than 30 miles in a day?
5/20 = 25%

b.) What is the interquartile range of the box-and-whisker plot?
30 − 3 = 27 mi

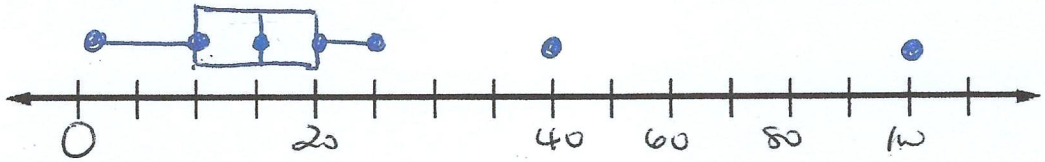
c.) Does a student at Tyler's school have a better chance to meet someone who drives the same mileage they do if they drive 50 miles in a day or 15 miles in a day? Why?
Better chance that drive 15 mi/day b/c data is located closer to 15 mi than 50 mi

6.) Bailey surveyed her friends to find the number of cans of soft drink they drink in an average week. Make a box-and-whisker plot of the data: {0, 0, 0, 1, 1, 1, 2, 2, 3, 4, 4, 5, 5, 7, 10, 10, 10, 11, 11}



Min = 0
Q_1 = 1
med = 4
Q_3 = 10
max = 11
no outliers

7.) The average life span of some animals commonly found in a zoo are given. Make a box-and-whisker plot of the data: {1, 7, 7, 10, 12, 12, 15, 15, 18, 20, 20, 20, 25, 40, 100}



Min = 1
Q_1 = 10
med = 15
Q_3 = 20
max = 25
outliers → 2