

STAT101 Worksheet: Quantitative Data – Veggies & HDL

Eat Your Vegetables! The following data represent the number of servings of vegetables per day that a random sample of forty 20-39 years old females consumed. The data are based upon a survey conducted by the United States Department of Agriculture. (F.Y.I. - USDA recommended servings: 3-5 vegetable, 2-4 fruits)

GIVEN: 40 females; Ages 20-39; Number of vegetable servings per day

0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.7	0.8	1.4
1.7	2.1	2.3	2.3	2.4	2.4	2.6	2.7	3.2	3.3
3.5	3.5	3.5	3.8	3.9	4.1	4.9	4.9	5.1	5.3
5.8	5.8	5.9	6.0	6.1	6.7	7.6	8.3	10.2	11.1

- 1) Using the servings data create a frequency table containing six classes with the upper limit of the first class at 1.0 servings.

Max 11.1
Min .2
RANGE 10.9
 $6 \overline{)10.9} = 1.8 \Rightarrow 2$

Servings/day of Veg. For 40, 20-39 yr. old Females

Servings	F	rf	cf	cnf
0-1	10	.250	10	.250
2-3	10	.250	20	.500
4-5	10	.250	30	.750
6-7	6	.150	36	.900
8-9	2	.050	38	.950
10-11	2	.050	40	1.000
Totals:	40	1.00	-	-

Remember 11.1 fits within class 10-11

- 2) Identify the following:

Class Width: 2

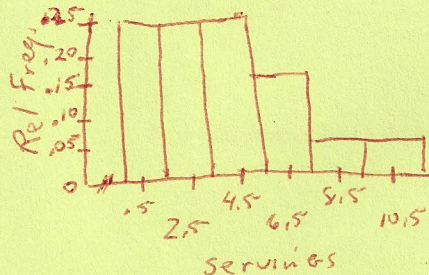
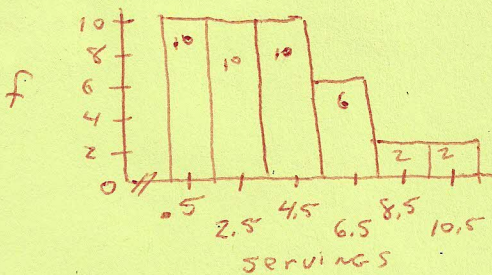
Midpoint of the third class: 4.5

Class Boundaries for the first class: 0 - 1.5
(can't go below 0, so not -.5)

Class Limits for the sixth class: 10, 11

- 3) Given the above frequency table, build each of the following charts: frequency histogram; relative frequency histogram.

Servings of Veggies/day among 40, 20-39 yr. old females



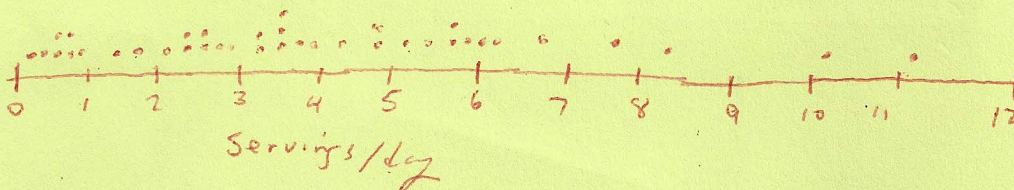
← Title

Leaf unit set

0	2 3 4 4 5 6 7 8
1	4 7
2	1 3 3 4 4 6 7
3	2 3 5 5 5 8 9
4	1 9 9
5	1 3 8 8 9
6	0 1 7
7	6
8	3
9	
10	2
11	1

- 4) Using the original data create a dot plot and a stem-and-leaf.

Title (as above)



GIVEN: Serum HDL Cholesterol levels of 40, 20-29 year old patients:

70 56 48 48 53 52 66 48 36 49 28 35 58 62 45 60 38 73 45 51
56 51 46 39 56 32 44 60 51 44 63 50 46 69 53 70 33 54 55 52

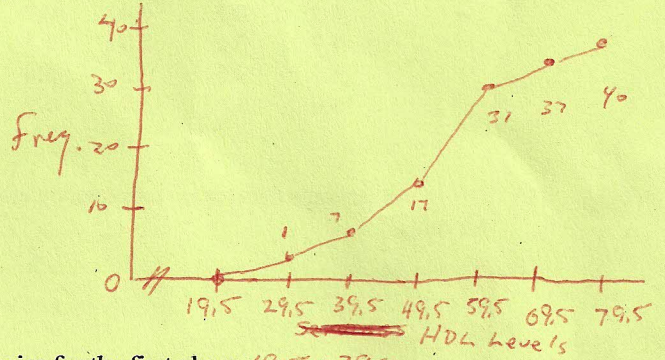
1) Construct a frequency table with a lower class limit of 20 and a class width of 10.

HDL cholesterol of 40, 20-29 yr. old patients

HDL	f	rf	cf	crf
20-29	1	.025	1	.025
30-39	6	.150	7	.175
40-49	10	.250	17	.425
50-59	14	.350	31	.775
60-69	6	.150	37	.925
70-79	3	.075	40	1.000
Total:	40	1.000	-	-

← Title (as to left)

OGIVE → uses upper Boundary values



2) Identify the following:

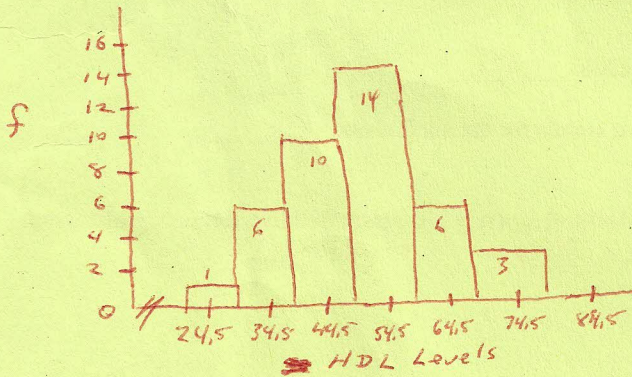
Midpoint of the second class: 34.5

Class Boundaries for the first class: 19.5 - 29.5

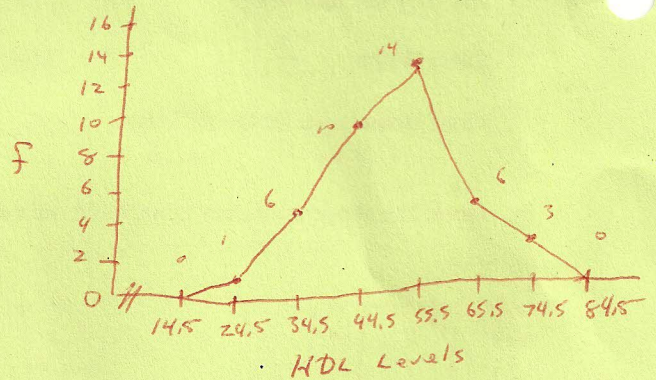
Class Limits for the third class: 40-49

3) Given the above frequency table, build each of the following charts: frequency histogram; frequency polygon.

Title (as above)

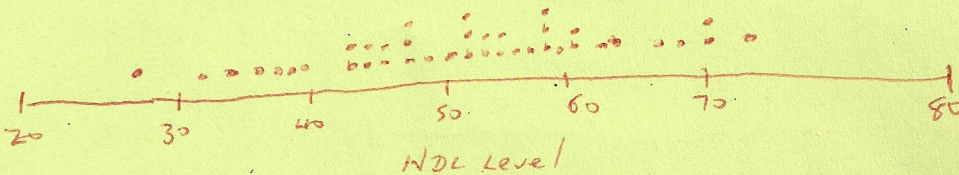


Title (as above)



4) Using the original data create a dot plot and a stem-and-leaf.

Title (as above)



Title (as above)
Double Stem & Leaf

Leaf = 1.0

2	8
3	2 3
3	5 6 8 9
4	4 4
4	5 5 6 6 8 8 8 9
5	0 1 1 1 2 2 3 3 4
5	5 6 6 6 8
6	0 0 2 3
6	6 9
7	0 0 3