Instructions

Week 4 Quiz – Frequency Distribution & Measures of Central Tendency

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INSTRUCTIONS: Write your answers in the spaces provided. Please note that you can get partial credit for showing how you got your work.

1. A community center cares for children while their parents work. On a certain day during the summer there were 20 children at the center whose ages were as follows:

2 , 13 , 7 , 5, 15,

7, 4 , 4 , 10, 8,

3 , 8 , 9 , 12 , 5,

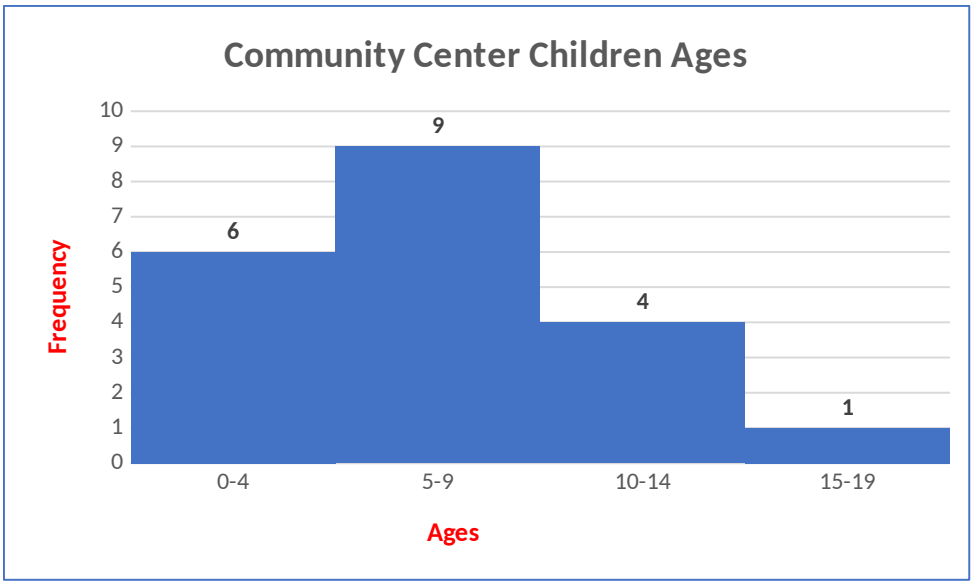
11, 6 , 6, 4 , 3,

Make a frequency distribution of these data including relative frequency, cumulative frequency, and cumulative percentage. Use intervals 0-4, 5-9, etc. (40 pts)

Interval	Frequency	Rel. Freq.	Cuml. Freq.	Cuml. %

Interval	**Frequency**	**Rel. Freq.**	**Cuml. Freq.**	**Cuml. %**
0-4	6	0.30	6	30%
5-9	9	0.45	15	75%
10-14	4	0.20	19	95%
15-19	1	0.05	20	100%
Total	**20**	**1**		

2. Draw a histogram of this distribution (20 pts)



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3. For the following set of numbers (N = 10):

30, 18, 20, 22, 20, 27, 19, 20, 28, 26

Find the following: (10 pts each)

- Mode – see below table (20)

- Mean - see below table (23)

- Variance – see below table

- Standard deviation (Please show your work using extra paper provided) - see below table

Professor Mbagi, I used excel and followed the supplementary document.
Thank you,

The variance did not come out as a whole number, therefore I was unsure if I needed to round.

Mode	20											
Mean	23	Mean = sum of data set (all value) divided by the total number of data set (values) (230/10)= 23										
Variance	18.66666667											
SD	4.32											
	X	**sum of X/10**			**x**	**x -Mean**	**Square of deviation**	**168/9**	**Square Root of 18.66667**			
1	30				30	7	49					
2	18				18	-5	25					
3	20				20	-3	9					
4	22				22	-1	1					
5	20				20	-3	9					
6	27				27	4	16					
7	19				19	-4	16					
8	20				20	-3	9					
9	28				28	5	25					
10	26				26	3	9					
	230	23			230	0	168	18.66667	4.32			
	Total	**Mean**			**Total**	**Deviations**	**Square Deviation**	**Variance**	**Standard Deviation**			