

Practice Problems #2

1. Out of a total of 45 meeting periods during a semester, the total number of missed classes was recorded for a class for 25 students. Here is the data:

3	5	6	7	7
8	8	9	9	9
10	10	10	10	11
11	11	11	11	12
12	12	13	13	16

- a.) What is the general shape of the distribution for this data (define the skewness, kurtosis, and modality)? For example: a normal distribution is symmetric, mesokurtic and unimodal.
- b.) Calculate the mode, median, and mean of the data.
- c.) Use the data to graph a histogram.

2. Calculate the cumulative frequency, percentages, and cumulative percentages for the following distribution:

<u>X</u>	<u>f</u>
40-49	8
30-39	12
20-29	20
10-19	6
0-9	4

3. Calculate the score for the 50th percentile (median) and the score for the 70th percentile from this grouped frequency distribution:

<u>Score</u>	<u>Freq.</u>	<u>%</u>	<u>C%</u>
65-69	1	5	100
60-64	2	10	95
55-59	2	10	85
50-54	4	20	75
45-49	4	20	55
40-44	2	10	35
35-39	3	15	25
30-34	2	10	10
Total	20	100	

Use this formula from the lecture:

$$\frac{X - LRL}{URL - LRL} = \frac{\% - L\%}{U\% - L\%}$$

4. From the following distribution of scores: 3 8 9 10 4 3 8 9 10 10 1

Construct a frequency distribution polygon.

5. When a distribution is positively skewed:

- a.) Which measure of central tendency is recommended and why?
- b.) Which measure of central tendency is not recommended and why?
- c.) Draw a positively skewed distribution and indicate where the measures of central tendencies would fall.