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**Statistical Methods for Economists – Week 1**

(Questions and Tasks)

The topic: ***Descriptive Statistics***

1.) Explain the difference between a *population* and a *sample*.

2.) Given the following set of data (considered to be a *sample*): (16, 20, 24, 18, 20, 22, 15, 20, 16, 22), calculate *absolute*, *relative* and *cumulative relative frequency* of each data point.

3.) What are *measures of central tendency*, and which measures are the most common?

4.) How do you calculate a *median* for odd and even number of data?

5.) Calculate an *arithmetic mean*, *modus*, and *median* for the data from Task 2. (Note: for all calculations you can use Excel or another tool).

6.) What are *measures of variability*, and which measures are the most common?

7.) How can you calculate a *variance* from a *standard deviation*, and vice versa?

8.) Calculate *variance*, *standard deviation*, *range* and *coefficient of variation* from the data provided in Task 2.

9.) What are *measures of data concentration*, and which measures are the most common?

10.) Calculate *kurtosis* and *skewness* for the data set provided in Task 2. (Note: you can use KURT and SKEW function in Excel).