

Measures of Location

Task 1. Each of taste testers rated a new brand of Cola on a 10-point scale, where 1- awful and 10- delicious. The results of an experiment are given below.

8, 7, 9, 6, 8, 10, 9, 9, 5, 7

Find and interpret:

- mean,
- mode,
- median.

Task 2. The children in a class state how many children there are in their family. The numbers they state are given below.

1, 2, 1, 3, 2, 1, 2, 4, 2, 2, 1, 3, 1, 2, 2, 2, 1, 1, 4, 3, 1, 2, 1, 2, 2, 1, 2, 3

Create frequency table. According to the constructed frequency table, find and interpret:

- mean,
- mode,
- median,

Task 3. The gross hourly earnings of a group of workers randomly selected from the payroll list of a large industrial concern were organized into a frequency distribution. Find and interpret:

- mean,
- mode,
- median,
- first quartile,
- third quartile.

Hourly Earnings [\$]	Number of Workers
8-10	11
10-12	17
12-14	32
14-16	27
16-18	13

Task 4. (Statistica) Scientists examined randomly selected men from the city of Gdynia in terms of spending time on work (variable „work”) during the week (in hours). On the basis of the data contained in the file Activities.sta perform an analysis. Create a box whisker plot. Find and interpret:

- mean,
- mode,
- median,
- I quartile,
- III quartile,
- I decile.

Task 5. (Gretl) Scientists examined Family income in 1975 in dollars in USA. On the basis of the data contained in the file ‘Women’s labor force participation and pay’ perform an analysis. Create a box whisker plot. Find and interpret:

- mean,
- mode,
- median,
- quartile range

Task 6. (Statistica) Download the data on GDP and main components (GDP at market prices, Unit of measure : Current Prices, million euro) for EU 28. Time span covers 2000-2015. On the basis of the data find and interpret:

- mean,

- b) mode,
- c) median,
- d) I quartile,
- e) III quartile,
- f) I decile.