Lab. 1. Describing data using Statistica and Gretl

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Statististica

Task 1. The United States is Canada's most important trading partner, as is evidenced by the table showing the distribution of exports from and imports to Canada in 1995.

Rewrite the data in Statistica.

    a) Create a bar plot of Export and Import.

    b) Create a new variable 'Trade balance' which is the difference between Export and Import (use the formulas).

    c) Create a pie chart for 'Trade balance'.

	Exports	Imports
United States	78	69
Asia/Pacific	9	13
Western Europe	8	13
Latin America	3	4
Other	2	1

Task 2. The yield of a common stock is obtained by dividing its annual dividend by its price. The yields for the next twelve months (following August 30, 2005) were estimated for 30 bank stocks. They are expressed as percentages in the accompanying table. Rewrite the data in Statistica.

    a) Create a line plot.

    b) Find the mean, median, mode, range, first quartile, third quartile, standard deviation, skewness, kurtosis.

    c) Create a frequency table and histogram with five equal class intervals.

4	4,2	5,3	5	4,95	4,2
4,1	4,15	5,1	4,85	4,8	4,35
4,3	4	5,25	5	4,5	4,15
5	3,9	5,4	5,1	4,55	4
4,5	5,5	4,9	5	4,4	3,9

Gretl

Task 3. The table shows the Birth rate and GNP growth in 12 countries. Rewrite the data in Gretl.

    a) Find the mean, median, standard deviation, skewness, kurtosis for Birth rate and GNP growth.

    b) Create a frequency graph for Birth rate and GNP growth.

Country	Birth rate	GNP growth
Brazil	30	5,1
Colombia	29	3,2
Costa Rica	30	3
India	35	1,4
Mexico	36	3,8
Peru	36	1
Philippines	34	2,8
Senegal	48	-0,3
South Korea	24	6,9
Sri Lanka	27	2,5
Taiwan	21	6,2
Thailand	30	4,6