

VJEŽBA 4

KORELACIJA I REGRESIJA

Izmjerena je visina u centimetrima i vitalni kapacitet pluća (VC) u litrama 33 studentice prve godine. Dobiveni su sljedeći rezultati:

Rbr.	Visina	VC	Rbr.	Visina	VC	Rbr.	Visina	VC
1.	180.6	4.74	12.	155.0	2.20	23.	174.2	4.27
2.	168.0	3.63	13.	171.0	3.38	24.	167.0	3.45
3.	163.0	3.40	14.	171.5	3.82	25.	162.0	2.88
4.	171.0	3.75	15.	167.6	3.26	26.	172.0	4.13
5.	177.0	4.23	16.	160.2	2.63	27.	161.0	2.90
6.	169.4	3.20	17.	166.6	3.06	28.	155.0	2.65
7.	161.0	2.90	18.	167.0	3.52	29.	162.0	3.12
8.	170.0	3.88	19.	163.0	2.82	30.	174.0	4.02
9.	158.0	2.40	20.	172.0	3.41	31.	161.0	2.80
10.	161.0	2.60	21.	158.0	2.81	32.	166.0	3.46
11.	163.0	2.72	22.	165.0	3.07	33.	166.0	3.26

Ocijenite postoji li povezanost visine i vitalnog kapaciteta pluća

Opisna statistika i testiranje normalnosti - MedCalc

Statistics->

Create tables->

Summary statistics table....

Selected variables: VC, visina

Report variables: Horizontally

Statistics: Mean

95% CI for mean

Standard Deviation

Test for Normal distribution

Opisna statistika i testiranje normalnosti - MedCalc

Create summary statistics table

Available variables:

Selected variables:

VC
Visina

Grouping variable:

Filter:

Options

Try Log transformation if distribution is not Normal

Report variables: Horizontally (next to each other)

Statistics:

Sample size
 Mean
 95% CI for mean
 Variance
 Standard Deviation
 Relative Standard Deviation
 Standard Error of Mean
 Median
 95% CI for median

Minimum
 Maximum
 2.5 - 97.5 Percentiles
 5 - 95 Percentiles
 10 - 90 Percentiles
 25 - 75 Percentiles
 Test for Normal distribution

OK Cancel

Opisna statistika i testiranje normalnosti - MedCalc

	Vitalni kapacitet	Visina
Mean	3.284	166.033
95% CI	3.074 to 3.494	163.846 to 168.221
SD	0.5919	6.1688
Normal Distr.	0.4989	0.7955

D'Agostino-Pearson test

Shapiro-Wilk P:

Vitalni kapacitet-> 0,6924

Visina-> 0,8601

Crtanje korelacionog dijagrama (raspršni/“scatter” grafikon)

Statistics->

Correlation->

Scatter diagram....

Variable Y: VC

Variable X: Visina

Izračun koeficijenta korelacije

Statistics->

Correlation->

Correlation coefficient....

Variable Y: VC

Variable X: Visina

LINEARNA REGRESIJA

Statistics->

Regression->

Regression....

Variable Y: VC

Variable X: Visina

Regression equation:

Include constant in equation

$$Y = a + b X$$