

# Statistika

3. i 4. vježbe

# Statistica

- ◆ Unos podataka
- ◆ Deskriptivna statistika
- ◆ Kolmogorov-Smirnov test normalnosti raspodjele

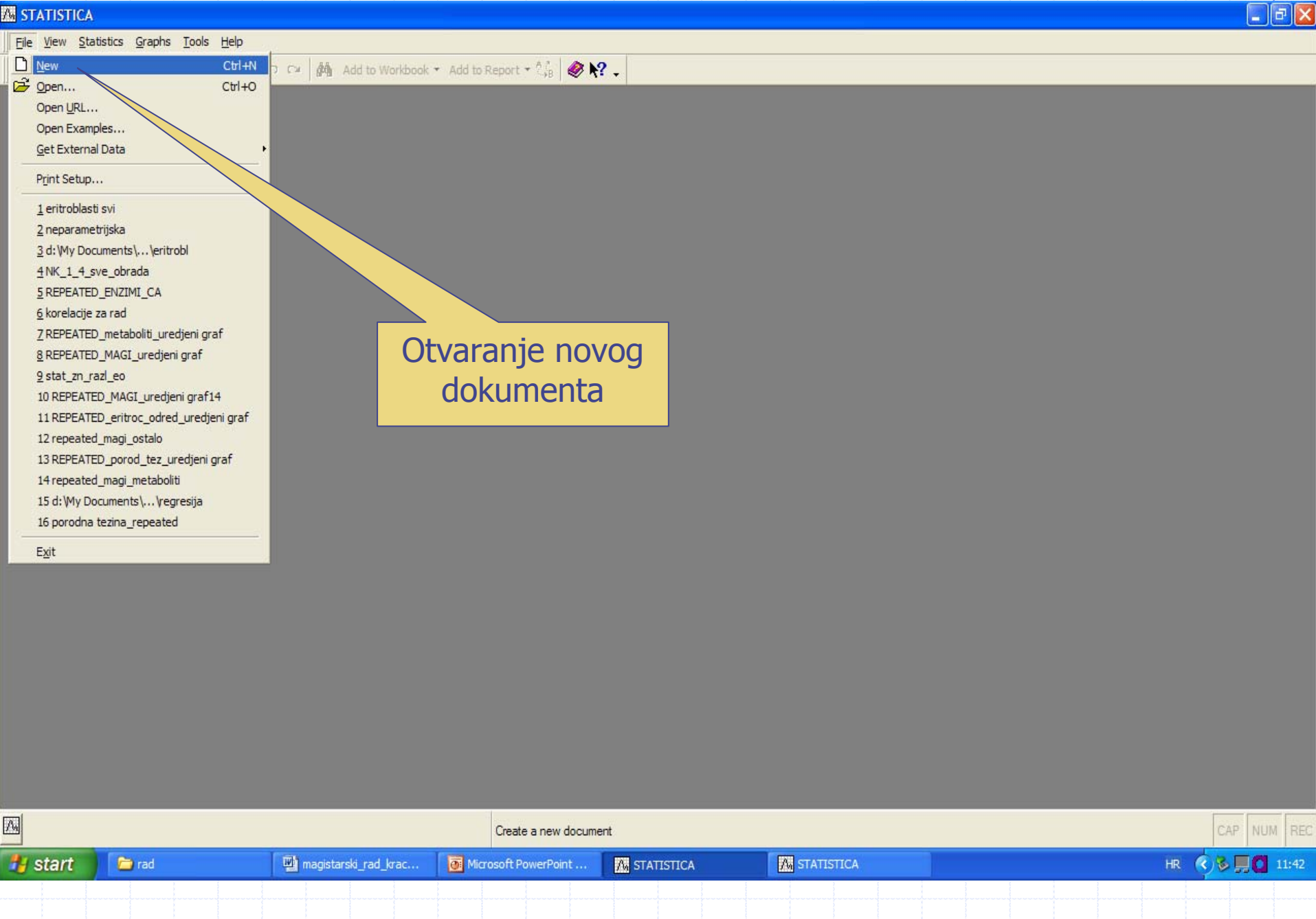
# Unos podataka:

- ◆ Unutar tri skupine prasadi promatrali smo porodnu težinu, težinu 21. dana života (prije odbića), broj leukocita te aktivnost enzima alanin aminotransferaze (ALT) u perifernoj krvi. Promatranje smo provodili na farmi XY, od 1. do 21. svibnja 2004. godine. Prasad je svrstana u tri skupine s obzirom na porodnu masu:
  - 1. skupina (M): prasad porodne mase do 1000 g
  - 2. skupina (S): prasad porodne mase 1001-1900 g
  - 3. skupina (T): prasad porodne mase veće od 1901 g
- ◆ Jedinice u kojima su izraženi pojedini pokazatelji:
  - Težina prasadi: grami
  - broj leukocita:  $\times 10^9/l$
  - ALT: U/l

The image shows a Windows XP desktop with the Start menu open. The desktop background is a landscape with Stonehenge. The Start menu is divided into several sections: Desktop icons (My Documents, My Computer, Recycle Bin, Ad-Aware SE Personal, Spybot - Search & Destroy, AVG Free), User profile (User), Internet Explorer, E-mail (Microsoft Office Outlook), Microsoft Office Word, Nero Burning ROM, Windows Media Player, InterVideo MSIPVS, Microsoft Office Excel, Microsoft Office PowerPoint 2003, All Programs, and the Start button. The All Programs list includes: PowerArchiver, Set Program Access and Defaults, Windows Catalog, Windows Update, AC3Filter, Accessories, CDEX, ChronoShutDown, CorelDRAW Graphics Suite 12, CyberLink PowerDVD, DivxG400, DVD Decrypter, DVD Shrink, ffdshow, Games, IrfanView, Lavasoft Ad-Aware SE Personal, MadOnion.com, Microsoft Office, Nero, PowerArchiver, PrintMe Internet Printing, QuickTime, REALTEK Gigabit and Fast Ethernet NIC Driver, Spybot - Search & Destroy, Startup, TuneUp Utilities 2004, Webteh, Adobe Reader 6.0, Internet Explorer, MSN, Outlook Express, Remote Assistance, and TuneUp Utilities 2004. The Windows Media Player section includes: Windows Media Player, Windows Messenger, Windows Movie Maker, InterVideo MSIPVS, Canon PhotoRecord, Canon PIXMA iP2000, Canon PIXMA iP2000 Manual, Canon Utilities, DivX Repair, DigiBookShelf Freeware, Firefly Studios, Guitar Pro 4 Demo, Post-it@ Software Notes Lite, Rainbow Islands - Candyland (Demo), and Microsoft Plus! Dancer LE. The STATISTICA 7 section is highlighted, showing: STATISTICA 7, Digital Cam, AVG Free Edition, Kao - 2nd round (demo), and Učilica 2003. A yellow speech bubble points to the STATISTICA 7 entry.

Otvaranje programa

The sub-menu for STATISTICA 7 is open, showing two items: STATISTICA and STATISTICA Electronic Manual. The STATISTICA item is highlighted.



STATISTICA

File View Statistics Graphs Tools Help

- New Ctrl+N
- Open... Ctrl+O
- Open URL...
- Open Examples...
- Get External Data
- Print Setup...
- 1 eritroblasti svi
- 2 neparametrijska
- 3 d:\My Documents\... \eritrobl
- 4 NK\_1\_4\_sve\_obrada
- 5 REPEATED\_ENZIMI\_CA
- 6 korelacije za rad
- 7 REPEATED\_metaboliti\_uredjeni graf
- 8 REPEATED\_MAGI\_uredjeni graf
- 9 stat\_zn\_razl\_eo
- 10 REPEATED\_MAGI\_uredjeni graf14
- 11 REPEATED\_eritroc\_odred\_uredjeni graf
- 12 repeated\_mag\_i\_ostalo
- 13 REPEATED\_porod\_tez\_uredjeni graf
- 14 repeated\_mag\_i\_metaboliti
- 15 d:\My Documents\... \regresija
- 16 porodna tezina\_repeated
- Exit

Otvoravanje novog dokumenta

Create a new document

Broj promatranih svojstava

Broj promatranih slučajeva (jedinki skupa, životinja)

Create New Document

Macro (SVB) Program | Workbook | Browser Window  
Spreadsheet | Report

Number of variables: 10  
Number of cases: 10  
Case name length: 0  
MD code: -9999  
Default data type: Double  
Variable length: 8

Placement  
 In a new Workbook  
 As a stand-alone window

Var name prefix: Var  
Var name start number: 1

Display format  
General  
Number  
Date  
Time  
Scientific  
Currency  
Percentage  
Fraction  
Custom

Default

OK Cancel

OK = prihvaćanje odabranih mogućnosti

Promjena naziva  
varijable  
2 x L tipka miša

Data: Spreadsheet1 (10v by 10c)

	1 Var1	2 Var2	3 Var3	8 Var8	9 Var9	10 Var10
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Data: Spreadsheet1 (10v by 10c)

	1 Var1	2 Var2	3 Var3	4 Var4	5 Var5
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

**Variable 1**

Name:  Type:  OK

Measurement Type:  Length:

Excluded  Label  Case State MD code:

Display format

- General
- Number
- Date
- Time
- Scientific
- Currency
- Percentage
- Fraction
- Custom

Long name (label or formula with  ):  Function guide

Labels: use any text. Formulas: use variable names or v1, v2, ..., v0 is case #.  
Examples: (a) = mean(v1:v3, sqrt(v7), AGE) (b) = v1+v2; comment (after;)

Unos naziva  
varijable



Data: Spreadsheet1 (10v by 10c)

	1 Var1	2 Var2	3 Var3	4 Var4	5 Var5
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Variable 1

Name: Visina Type: Double

Measurement Type: Auto Length: 8

Excluded  Label  Case State MD code: -9999

Display format

- General
- Number
- Date
- Time
- Scientific
- Currency
- Percentage
- Fraction
- Custom

Long name (label or formula with Functions):  Function guide

Labels: use any text. Formulas: use variable names or v1, v2, ..., v0 is case #.  
Examples: (a) = mean(v1:v3, sqrt(v7), AGE) (b) = v1+v2; comment (after;)

OK = prihvaćanje odabranih postavki

Data: Spreadsheet1\* (10v by 10c)

	1	2	3	4	5	6	7	8	9	10
	Visina	Var2	Var3	Var4	Var5	Var6	Var7	Var8	Var9	Var10
1										
2										
3										
6										
7										
8										
9										
10										

Promjena imena  
slučaja (oznaka  
jedinke)  
2 x L tipka miša i  
upis

Data: Spreadsheet1\* (10v by 10c)

	1 Visina	2 Var2	3 Var3	4 Var4	5 Var5	6 Var6	7 Var7	8 Var8	9 Var9	10 Var10
MB21										
2										
3										
4										
5										
6										
7										
8										
9										
10										



STATISTICA - Spreadsheet1

File Edit View Insert Format Statistics Graphs Tools Data Window Help

Arial 10 B I U

Data: Spreadsheet1\* (10v by 10c)

	1	2	3	4
	Visina	Var2	Var3	Var4
MB21				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Save As

Save in: My Documents

- CyberLink
- luka
- ljetopis04\_05
- magisterij\_05
- marcela
- moje
- My Music
- My Pictures
- My Videos
- statistika\_ana
- tin

File name: Spreadsheet1

Save as type: STATISTICA Spreadsheet Files (\*.sta)

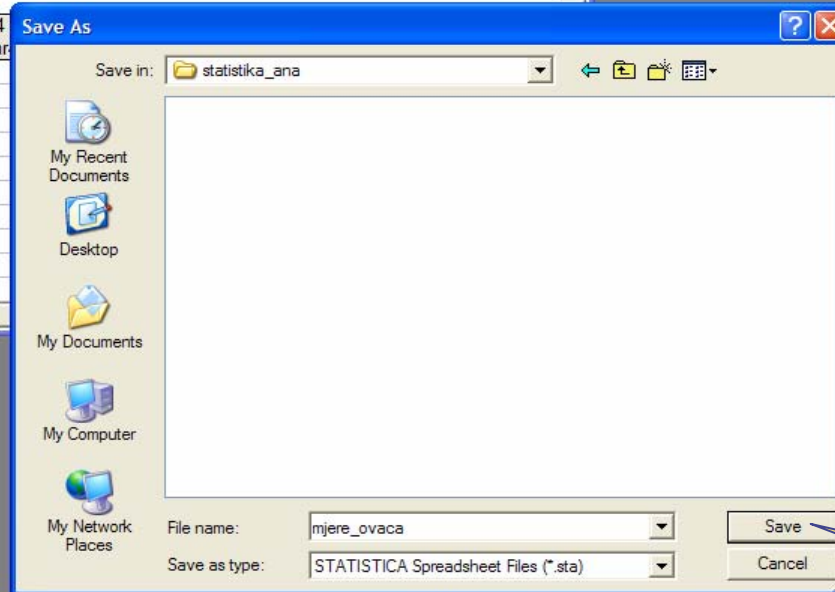
Save Cancel

Odabir mape 2 x L tipka miša

Upis naziva dokumenta

Data: Spreadsheet1\* (10v by 10c)

	1	2	3	4
	Visina	Var2	Var3	Var4
MB21				
2				
3				
4				
5				
6				
7				
8				
9				
10				



Spremanje  
podataka

Data: mjere\_ovaca (10v by 10c)

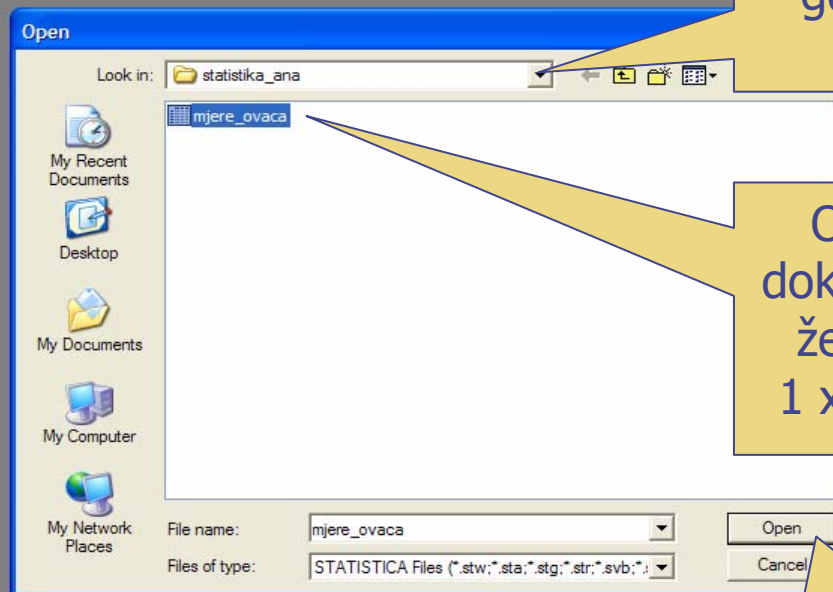
	1	2	3	4	5	6	7	8	9	10
	Visina	Var2	Var3	Var4	Var5	Var6	Var7	Var8	Var9	Var1
MB21										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Na okviru dokumenta nalazi se ime pod kojim smo ga spremili

- File
  - View
  - Statistics
  - Graphs
  - Tools
  - Help
- New Ctrl+N
- Open... Ctrl+O
- Open URL...
  - Open Examples...
  - Get External Data
- Print Setup...
- 1 mjere\_ovaca
  - 2 eritroblasti svi
  - 3 neparametrijska
  - 4 d:\My Documents\... \eritrobl
  - 5 NK\_1\_4\_sve\_obra
  - 6 REPEATED\_ENZIMI\_CA
  - 7 korelacije za rad
  - 8 REPEATED\_metaboliti\_uredjeni graf
  - 9 REPEATED\_MAGI\_uredjeni graf
  - 10 stat\_zn\_razl\_eo
  - 11 REPEATED\_MAGI\_uredjeni graf14
  - 12 REPEATED\_eritroc\_odred\_uredjeni graf
  - 13 repeated\_mag\_i\_ostalo
  - 14 REPEATED\_porod\_tez\_uredjeni graf
  - 15 repeated\_mag\_i\_metaboliti
  - 16 d:\My Documents\... \regresija
- Exit

Otvaranje postojećeg dokumenta





Otvaranje mape gdje se nalazi dokument

Označavanje dokumenta kojeg želimo otvoriti  
1 x L tipka miša

Naredba za otvaranje označenog dokumenta

	1	2	3	4	5															
	kod	porod.tež(g)	tež.21d	leukoc.(10 <sup>9</sup> /l)	ALT															
1	M	800	4200	7,3	70															
2	M	970	5010	12,7	30															
3	M	825	2560	7,7	60															
4	M	985	6500	7,1	40															
5	M	990	6200	11,4	74															
6	M	825	4800	6,2	58															
7	M	995	5000	8,6	39															
8	M	860	5200	4,1	45															
9	M	705	3930	7,8	60															
10	M	805	6000	7,6	41															
11	M	965	5600	9,6	46															
12	M	820	3900	9,2	48															
13	M	960	2690	19,3	38															
14	M	780	3950	20,8	52															
15	M	857	2110	11,8	67															
16	M	798	4800	10,2	50															
17	M	806	4420	8,7	57															
18	M	930	4560	11,9	52															
19	M	906	4740	16,8	51															
20	M	750	4960	31,9	44															
21	M	770	4880	11,5	38															
22	M	840	4320	31,3	61															
23	M	808	3200	11,1	57															
24	M	801	3870	12,1	61															
25	M	925	4100	6,1	44															
26	M	835	4000	15,1	41															
27	M	750	1700	8,9	66															
28	M	825	5400	8,3	39															
29	M	822	3500	11,1	51															
30	M	970	4600	10,2	34															
31	S	1225	5900	12,2	40															
32	S	1250	5100	7,1	43															
33	S	1670	8600	15	51															
34	S	1810	7400	32,8	41															
35	S	1500	6800	11,9	39															
36	S	1645	7030	9,6	40															
37	S	1565	7700	6,2	39															
38	S	1845	5950	7,2	37															
39	S	1375	5000	10,9	54															
40	S	1555	6450	5,8	46															
41	S	1610	6500	8,2	46															
42	S	1325	7100	27,6	41															
43	S	1560	6800	7,6	66															
44	S	1650	6840	9,7	35															

	1	2			
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4	M	984			
5	M	990			
6	M	824			
7	M	994			
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9	M	704			
10	M	804			
11	M	964			
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13	M	960			
14	M	780			
15	M	850			
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21	M	770	4880	0	38
22	M	840	4320	2	61
23	M	808	3200	0	57
24	M	801	3870	0	61
25	M	925	4100	0	44
26	M	835	4000	0	41
27	M	750	1700	0	66
28	M	825	5400	0	39
29	M	822	3500	0	51
30	M	970	4600	0	34
31	S	1225	5900	0	40
32	S	1250	5100	0	43
33	S	1670	8600	0	51
34	S	1810	7400	0	41
35	S	1500	6800	0	39
36	S	1645	7030	0	40
37	S	1565	7700	0	39
38	S	1845	5950	0	37
39	S	1375	5000	0	54
40	S	1555	6450	0	46
41	S	1610	6500	0	46
42	S	1325	7100	0	41
43	S	1560	6800	3	66
44	S	1650	6840	0	35
45	S	1675	8800	4	30

Basic Statistics/Tables	
<input checked="" type="checkbox"/>	Multiple Regression
<input checked="" type="checkbox"/>	ANOVA
<input checked="" type="checkbox"/>	Nonparametrics
<input checked="" type="checkbox"/>	Distribution Fitting
<input type="checkbox"/>	Advanced Linear/Nonlinear Models
<input type="checkbox"/>	Multivariate Exploratory Techniques
<input type="checkbox"/>	Industrial Statistics & Six Sigma
<input type="checkbox"/>	Power Analysis
<input type="checkbox"/>	Neural Networks
<input type="checkbox"/>	Data-Mining
<input type="checkbox"/>	QC Data Mining & Root Cause Analysis
<input type="checkbox"/>	Text & Document Mining, Web Crawling
<input type="checkbox"/>	Statistics of Block Data
<input type="checkbox"/>	STATISTICA Visual Basic
<input type="checkbox"/>	Probability Calculator

	1	2	3	4	5
	kod	porod.tež(g)	tež.21d	leukoc.(10 <sup>9</sup> /l)	ALT
1	M	800	4200	7,3	70
2	M	970	5010	12,7	30
3	M	825	2560	7,7	60
4	M	985	6500	7,1	40
5	M	990	6200	11,4	74
6	M	825	4800	6,2	58
7	M	995	5000	8,6	39
8	M	860	5200	4,1	45
9	M	705	3930	7,8	60
10	M	805	6000	7,6	41
11	M	965	5600	9,6	46
12	M	820	3900	9,2	48
13	M	960	2690	19,3	38
14	M	780	3950	20,8	52
15	M	857	2110	11,8	67
16	M	798	4800	10,2	50
17	M	806	4420	8,7	57
18	M	930	4560	11,9	52
19	M	906	4740	16,8	51
20	M	750	4960	31,9	44
21	M	770	4880	11,5	38
22	M	840	4320	31,3	61
23	M	808	3200	11,1	57
24	M	801	3870	12,1	61
25	M	925	4100	6,1	44
26	M	835	4000	15,1	41
27	M	750	1700	8,9	66
28	M	825	5400	8,3	39
29	M	822	3500	11,1	51
30	M	970	4600	10,2	34
31	S	1225	5900	12,2	40
32	S	1250	5100	7,1	43
33	S	1670	8600	15	51
34	S	1810	7400	32,8	41
35	S	1500	6800	11,9	39
36	S	1645	7030	9,6	40
37	S	1565	7700	6,2	39
38	S	1845	5950	7,2	37
39	S	1375	5000	10,9	54
40	S	1555	6450	5,8	46
41	S	1610	6500	8,2	46
42	S	1325	7100	27,6	41
43	S	1560	6800	7,6	66
44	S	1650	6840	9,7	35

### Basic Statistics and Tabl

Quick

- Descriptive statistics
- Correlation matrices
- t-test, independent, by groups
- t-test, independent, by variables
- t-test, dependent samples
- t-test, single sample
- Breakdown & one-way ANOVA
- Breakdown; non-factorial tables
- Frequency tables
- Tables and banners
- Multiple response tables
- Difference tests: t, %, means
- Probability calculator

Buttons: OK, Cancel, Options, Open Data, SELECT CASES, W

	1 kod	2 porod.tež(g)	3 tež.21d	4 leukoc.(10 <sup>9</sup> /l)	5 ALT
1	M	800	4200	7,3	70
2	M	970	5010	12,7	30
3	M	825	2560	7,7	60
4	M	985	6500	7,1	40
5	M	990	6200	11,4	74
6	M	825	4800	6,2	58
7	M	995	5000	8,6	39
8	M	860	5200	4,1	45
9	M	705	3930	7,8	60
10	M	805	6000		
11	M	965	5600		
12	M	820	3900		
13	M	960	2690		
14	M	780	3950		
15	M	857	2110		
16	M	798	4800		
17	M	806	4420		
18	M	930	4560		
19	M	906	4740		
20	M	750	4960		
21	M	770	4880		
22	M	840	4320		
23	M	808	3200		
24	M	801	3870		
25	M	925	4100		
26	M	835	4000		
27	M	750	1700		
28	M	825	5400		
29	M	822	3500		
30	M	970	4600		
31	S	1225	5900		
32	S	1250	5100	7,1	43
33	S	1670	8600	15	51
34	S	1810	7400	32,8	41
35	S	1500	6800	11,9	39
36	S	1645	7030	9,6	40
37	S	1565	7700	6,2	39
38	S	1845	5950	7,2	37
39	S	1375	5000	10,9	54
40	S	1555	6450	5,8	46
41	S	1610	6500	8,2	46
42	S	1325	7100	27,6	41
43	S	1560	6800	7,6	66
44	S	1650	6840	9,7	35

**Descriptive Statistics: prasad.vj.3\_5\_leuk**

Select the variables for the ...

Variable

Quick Advan

Summ

Location, va

Valid N

Mean

Sum

Median

Mode

Geom. m

Harm. me

1-kod  
2-porod.tež(g)  
3-tež.21d  
4-leukoc.(109/l)  
5-ALT

OK Cancel

Cancel

Options

Use the "Show appropriate variables only" option to pre-screen variable lists and show categorical and continuous variables. Press F1 for more information.

Select variables:

2-5

Show appropriate variables only

Select All Spread Zoom

Save settings as default

	1	2	3	4	5
	kod	porod.tež(g)	tež.21d	eozin.	ALT
1	M	800	4200	0	70
2	M	970	5010	1	30
3	M	825	2560	0	60
4	M	985	6500	0	40
5	M	990	6200	0	74
6	M	825	4800	1	58
7	M	995	5000	0	39
8	M	860	5200	0	45
9	M	705	3930	1	60
10	M	805	6000		
11	M	965	5600		
12	M	820	3900		
13	M	960	2690		
14	M	780	3950		
15	M	857	2110		
16	M	798	4800		
17	M	806	4420		
18	M	930	4560		
19	M	906	4740		
20	M	750	4960		
21	M	770	4080		
22	M	840	4320		
23	M	808	3200		
24	M	801	3870		
25	M	925	4100		
26	M	835	4000		
27	M	750	1700		
28	M	825	5400		
29	M	822	3500		
30	M	970	4600		
31	S	1225	5900		
32	S	1250	5100	0	43
33	S	1670	8600	0	51
34	S	1810	7400	0	41
35	S	1500	6800	0	39
36	S	1645	7030	0	40
37	S	1585	7700	0	39
38	S	1845	5950	0	37
39	S	1375	5000	0	54
40	S	1555	6450	0	46
41	S	1610	6500	0	46
42	S	1325	7100	0	41
43	S	1560	6800	3	66
44	S	1650	6840	0	35
45	S	1655	6800	4	30

### Descriptive Statistics: prasad.vj.3\_5\_ok

Variables: porod.tež(g)-ALT

Summary

Quick Advanced Normality Prob. & Scatterplots Categ. plots Options

Summary: Descriptive statistics Compute statistics:

Location, valid N

- Valid N
- Mean
- Sum
- Median
- Mode
- Geom. mean
- Harm. mean

Variation, moments

- Standard Deviation
- Variance
- Std. err. of mean
- Conf. limits for means
- Interval: 95.00 %
- Skewness
- Std. err., Skewness
- Kurtosis
- Std. err., Kurtosis

Percentiles, ranges

- Minimum & maximum
- Lower & upper quartiles
- Percentile boundaries
- First: 10.00 %
- Second: 90.00 %
- Range
- Quartile range

SELECT CASES

Wghtd momnts

DF =

W-1  N-1

MD deletion

Casewise

Pairwise

Select all stats Reset

Save settings as default

	1	2	3	4	5
	kod	porod.tež(g)	tež.21d	eozin.	ALT
1	M	800	4200	0	70
2	M	970	5010	1	30
3	M	825	2560	0	60
4	M	985	6500	0	40
5	M	990	6200	0	74
6	M	825	4800	1	58
7	M	995	5000	0	39
8	M	860	5200	0	45
9	M	705	3930	1	60
10	M	805	6000	0	39
11	M	965	5600	0	39
12	M	820	3900	0	39
13	M	960	2690	0	39
14	M	780	3950	0	39
15	M	857	2110	0	39
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17	M	806	4420	0	39
18	M	930	4560	0	39
19	M	906	4740	0	39
20	M	750	4960	0	39
21	M	770	4880	0	39
22	M	840	4320	0	39
23	M	808	3200	0	39
24	M	801	3870	0	39
25	M	925	4100	0	39
26	M	835	4000	0	39
27	M	750	1700	0	39
28	M	825	5400	0	39
29	M	822	3500	0	39
30	M	970	4600	0	39
31	S	1225	5900	0	43
32	S	1250	5100	0	43
33	S	1670	8600	0	51
34	S	1810	7400	0	41
35	S	1500	6800	0	39
36	S	1645	7030	0	40
37	S	1565	7700	0	39
38	S	1845	5950	0	37
39	S	1375	5000	0	54
40	S	1555	6450	0	46
41	S	1610	6500	0	46
42	S	1325	7100	0	41
43	S	1560	6800	3	66
44	S	1650	6840	0	35
45	S	1655	6800	4	30

**Descriptive Statistics: prasad.vj.3\_5\_ok**

Variables: porod.tež(g)-ALT

Quick Advanced Normality Prob. & Scatterplots Categ. plots Options

Summary: Descriptive statistics Compute statistics:

Location, valid N:  Valid N,  Mean,  Sum,  Median,  Mode,  Geom. mean,  Harm. mean

Variation, moments:  Standard Deviation,  Variance,  Std. err. of mean,  Conf. limits for means, Interval: 95,00 %,  Skewness,  Std. err., Skewness,  Kurtosis,  Std. err., Kurtosis

Percentiles, ranges:  Minimum & maximum,  Lower & upper quartiles,  Percentile boundaries, First: 10,00 %, Second: 90,00 %,  Range,  Quartile range

Select all stats, Reset, Save settings as default

Summary, Cancel, Options, SELECT CASES, W, MD deletion:  Casewise,  Pairwise

Ukoliko u jednom dokumentu imamo podatke za više grupa životinja, odabrati od kojeg do kojeg promatranja se obrađuju podaci

	1	2	3	4	5															
	kod	porod.tež(g)	tež.21d	eozin.	ALT															
1	M	800	4200	0	70															
2	M	970	5010	1	30															
3	M	825	2560	0	60															
4	M	985	6500	0	40															
5	M	990	6200	0	74															
6	M	825	4800	1	58															
7	M	995	5000																	
8	M	860	5200																	
9	M	705	3930																	
10	M	805	6000																	
11	M	965	5600																	
12	M	820	3900																	
13	M	960	2690																	
14	M	780	3950																	
15	M	857	2110																	
16	M	798	4800																	
17	M	806	4420																	
18	M	930	4560																	
19	M	906	4740																	
20	M	750	4960																	
21	M	770	4880																	
22	M	840	4320																	
23	M	808	3200																	
24	M	801	3870																	
25	M	925	4100																	
26	M	835	4000																	
27	M	750	1700																	
28	M	825	5400																	
29	M	822	3500																	
30	M	970	4600																	
31	S	1225	5900																	
32	S	1250	5100																	
33	S	1670	8600																	
34	S	1810	7400																	
35	S	1500	6800																	
36	S	1645	7030																	
37	S	1565	7700																	
38	S	1845	5950																	
39	S	1375	5000																	
40	S	1555	6450																	
41	S	1610	6500																	
42	S	1325	7100																	
43	S	1560	6800																	
44	S	1650	6840																	
45	S	1655	6880																	

### Analysis/Graph Case Selection Conditions

Use current Spreadsheet selection conditions  
 Use selection conditions for this Analysis/Graph only

Enable Selection Conditions
 Review Variables
Clear All
OK

Include cases:
 

- All
- Specific, selected by:
  - By Expression:
  - or case number:

Exclude cases (from the set of cases defined in the 'Include cases' section)
 

- By expression:
- or case number:

By case number: Enter case numbers and/or ranges. Example: 1, 3, 5-12  
 By expression: Use the same operators, functions, and syntax as in the spreadsheet formulas:  
 Use variable names or v1, v2... v0 is the case number (v0<4 means cases 1-3)  
 Examples: (a) v1=0 OR age>18 (b) gender=MALE AND v4<>(v5+v6)

Cancel  
Open...  
Save As...



- Workbook3\*
- Basic Statistics/Tables
- Descriptive statistic
- Descriptive Stat

Descriptive Statistics (prasad.vj.3\_5\_leuk)  
Include cases: 1:30

Variable	Valid N	Mean	Minimum	Maximum	Std.Dev.
porod.tez(g)	30	855,933	705,000	996,000	82,372
tez.21d	30	4356,667	1700,000	6500,000	1134,960
leukoc.(10 <sup>9</sup> /l)	30	11,837	4,100	31,900	6,544
ALT	30	50,467	30,000	74,000	11,285

File Edit View Insert Format Statistics Graphs Tools Data Workbook Window Help

Arial 10 B I U

Workbook3\*

- Basic Statistics/Tables
- Descriptive statistic
- Descriptive Stat

Descriptive Statistics (prasad.vj.3\_5\_leuk)  
Include cases: 1:30

Variable	Valid N	Mean	Minimum	Maximum	Std.Dev.
porod.tež(g)	30	855,933	705,000	995,000	82,372
tež.21d	30	4356,667	1700,000	6500,000	1134,960
leukoc.(10 <sup>9</sup> /l)	30	11,837	4,100	31,900	6,544
ALT	30	50,467	30,000	74,000	11,285

**Descriptive Statistics: prasad.vj.3\_5\_leuk**

Variables: porod.tež(g)-ALT

Quick | Advanced | Normality | Prob. & Scatterplots | Categ. plots | Options

Distribution:  Frequency tables  Histograms

Categorization:  Number of intervals: 10  Integer intervals (categories)

Normal expected frequencies

Kolmogorov-Smirnov & Lilliefors test for normality

Shapiro-Wilk's W test

Stem and leaf:  Stem & leaf plot  Compressed

3D histograms, bivariate distributions  Categorized histograms

Use Distribution Fitting, Process Analysis, or Graphs (P-P or Q-Q) to fit other distributions; use Survival Analysis to fit distributions to censored data.

SELECT CASES:  Wghtd momnts

DF =  W-1  N-1

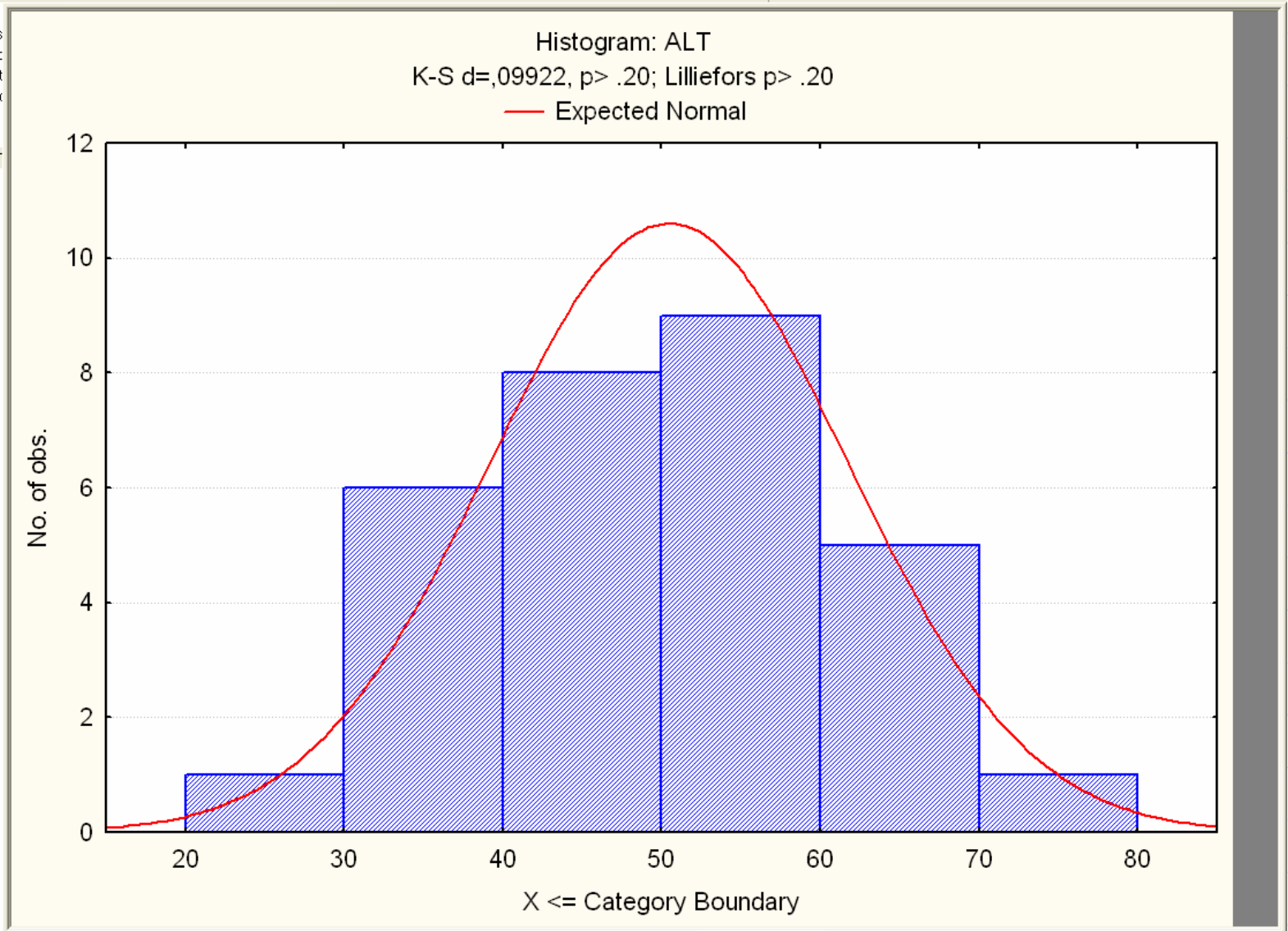
MD deletion:  Casewise  Pairwise

Summary: Cancel Options

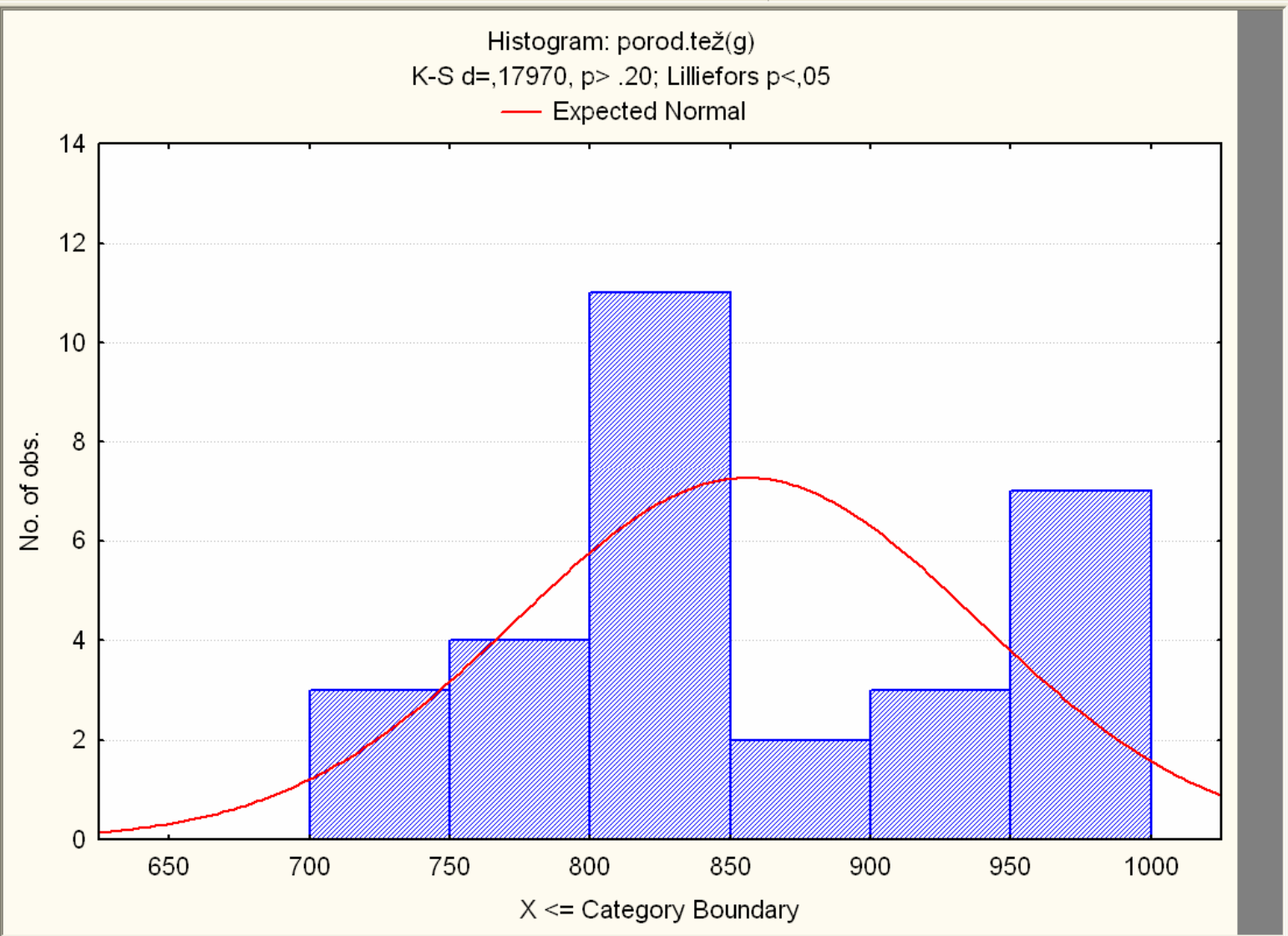
Descriptive Statistics (prasad.vj.3\_5\_leuk)

Descriptive Statistics...

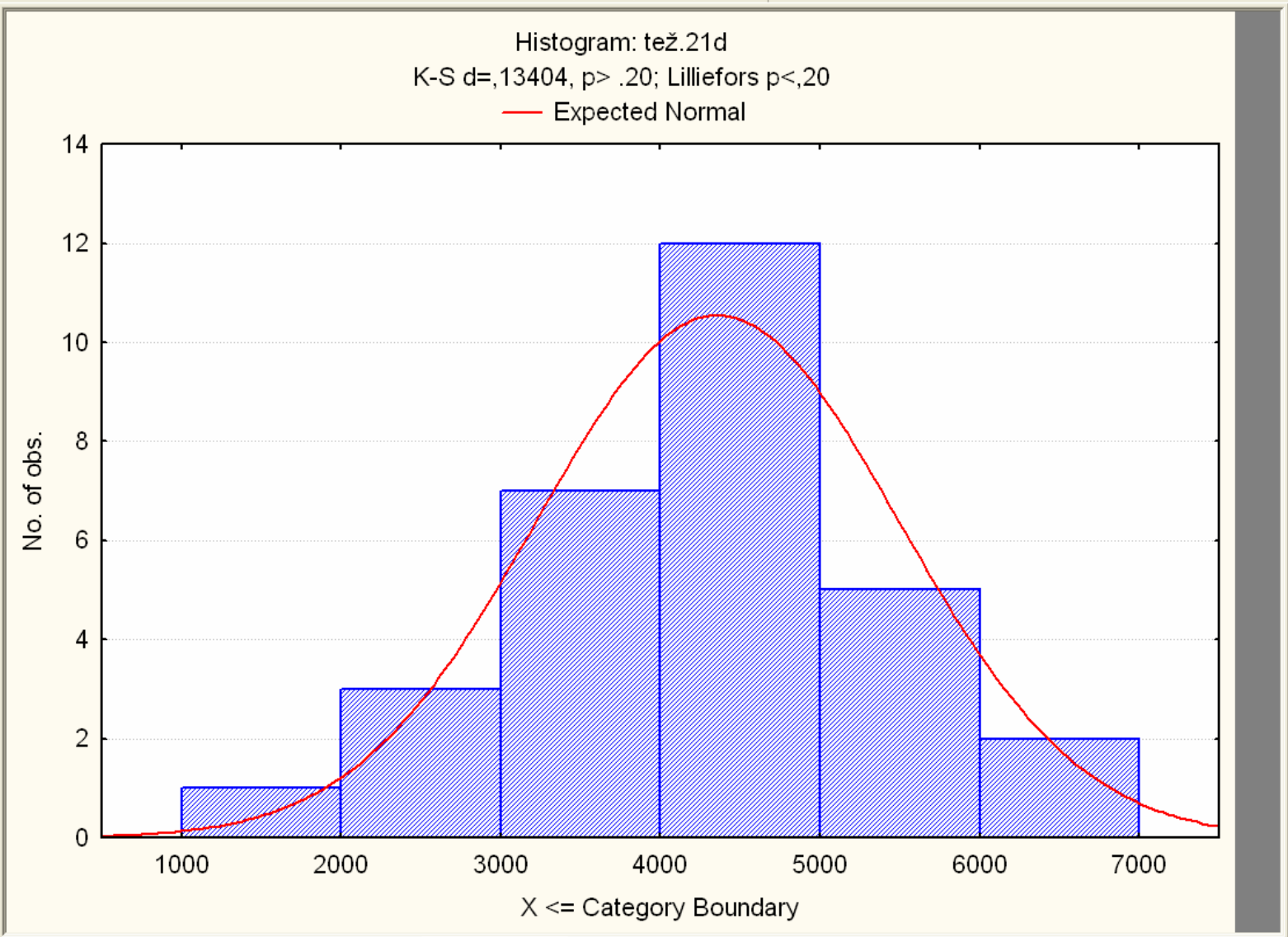
- Workbook1\*
- Basic Statistics/Tables
  - Descriptive statistic
    - Descriptive Stat
    - Histogram: porod
    - Histogram: tež.
    - Histogram: eoz
    - Histogram: ALT



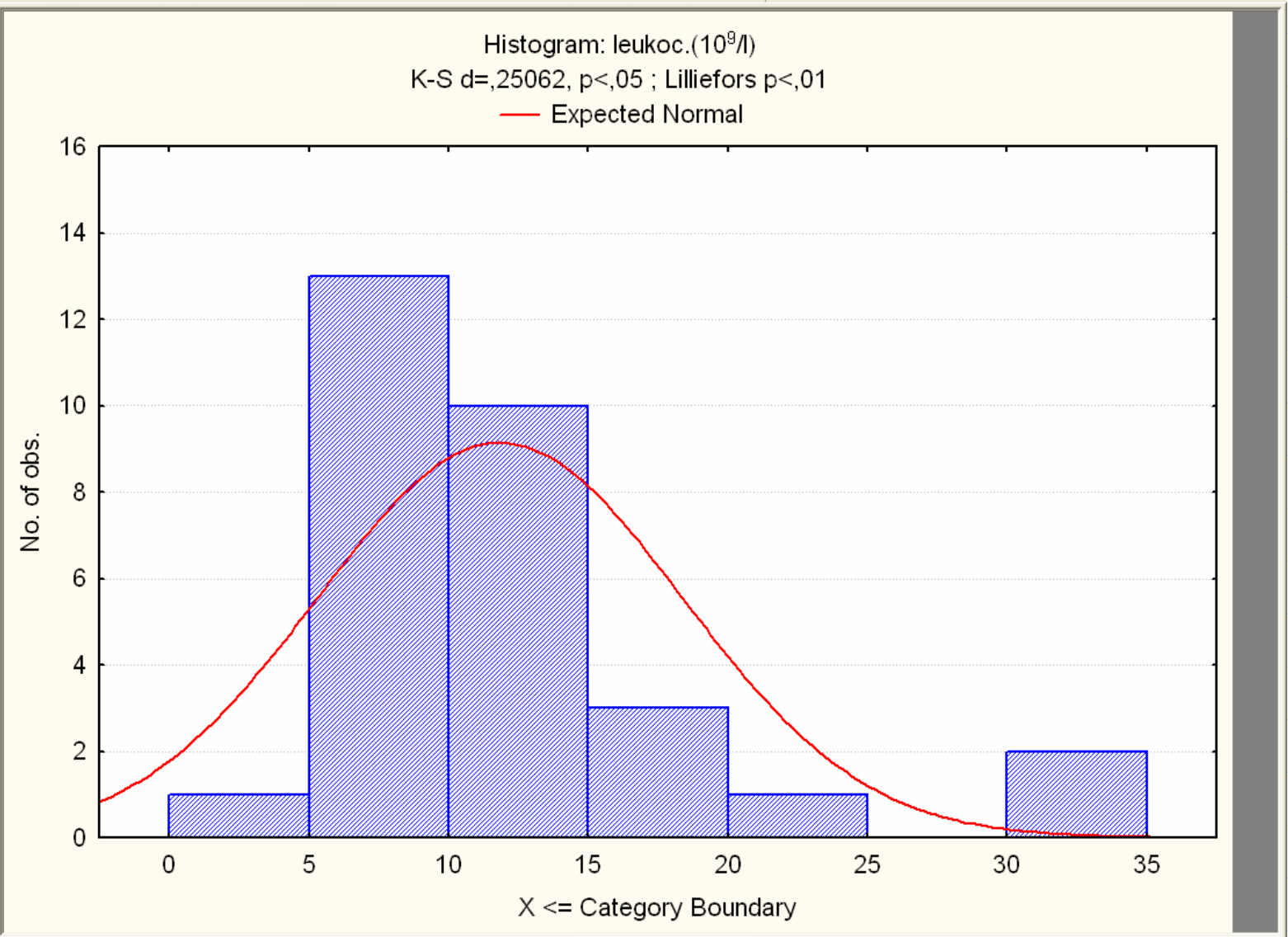
- Basic Statistics/Tables
  - Descriptive statistic
    - Descriptive Stat
    - Histogram: porod.tež(g)**
    - Histogram: tež.
    - Histogram: eoz
    - Histogram: ALT
    - Descriptive Stat
    - Histogram: porod.tež(g)
    - Histogram: tež.
    - Histogram: eoz
    - Histogram: ALT
    - Descriptive Stat
    - Histogram: porod.tež(g)
    - Histogram: tež.
    - Histogram: eoz
    - Histogram: ALT



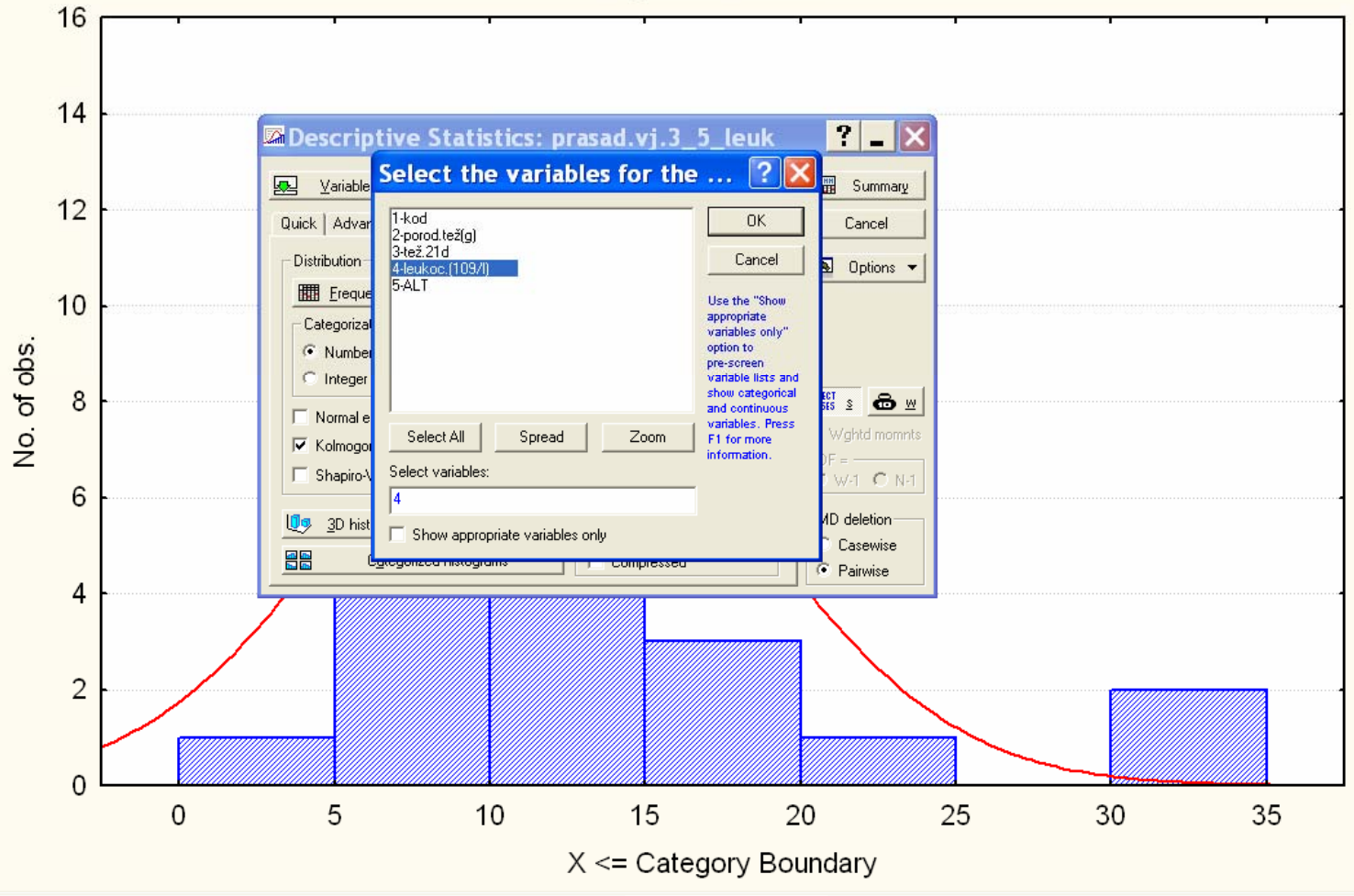
- Workbook1\*
  - Basic Statistics/Tables
    - Descriptive statistic
      - Descriptive Stat
      - Histogram: por
      - Histogram: tež.
      - Histogram: eoz
      - Histogram: ALT
      - Descriptive Stat
      - Histogram: por
      - Histogram: tež.
      - Histogram: eoz
      - Histogram: ALT
      - Descriptive Stat
      - Histogram: por
      - Histogram: tež.
      - Histogram: eoz
      - Histogram: ALT



- Workbook3\*
- Basic Statistics/Tables
- Descriptive statistic
  - Descriptive Stat
  - Histogram: por
  - Histogram: tež.
  - Histogram: leuk
  - Histogram: ALT



Histogram: leukoc.(10<sup>9</sup>/l)  
K-S d=,25321, p<,05 ; Lilliefors p<,01  
— Expected Normal



Descriptive Statistics: prasad.vj.3\_5\_leuk

Select the variables for the ...

- 1-kod
- 2-porod.tež(g)
- 3-tež.21d
- 4-leukoc.(109/l)
- 5-ALT

Buttons: Select All, Spread, Zoom

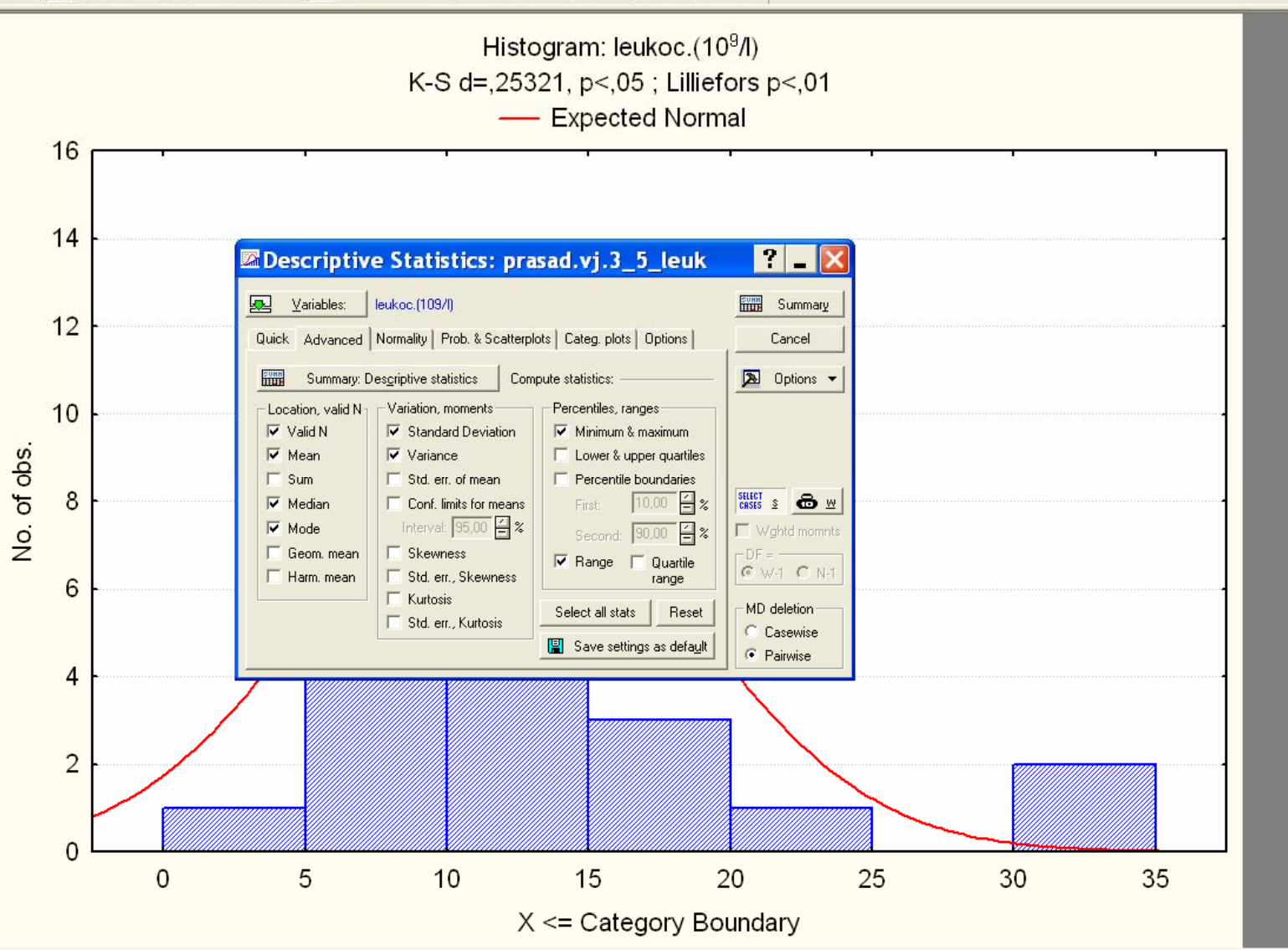
Select variables: 4

Show appropriate variables only

Use the "Show appropriate variables only" option to pre-screen variable lists and show categorical and continuous variables. Press F1 for more information.

Workbook2\*

- Basic Statistics/Tables
- Descriptive statistic
  - Descriptive Stat
  - Histogram: por
  - Histogram: tež.
  - Histogram: leuk
  - Histogram: ALT



#### Descriptive Statistics: prasad.vj.3\_5\_leuk

Variables: leukoc.(109/l)

Quick | Advanced | Normality | Prob. & Scatterplots | Categ. plots | Options

Summary: Descriptive statistics | Compute statistics:

Location, valid N	Variation, moments	Percentiles, ranges
<input checked="" type="checkbox"/> Valid N	<input checked="" type="checkbox"/> Standard Deviation	<input checked="" type="checkbox"/> Minimum & maximum
<input checked="" type="checkbox"/> Mean	<input checked="" type="checkbox"/> Variance	<input type="checkbox"/> Lower & upper quartiles
<input type="checkbox"/> Sum	<input type="checkbox"/> Std. err. of mean	<input type="checkbox"/> Percentile boundaries
<input checked="" type="checkbox"/> Median	<input type="checkbox"/> Conf. limits for means	First: 10,00 %
<input checked="" type="checkbox"/> Mode	Interval: 95,00 %	Second: 90,00 %
<input type="checkbox"/> Geom. mean	<input type="checkbox"/> Skewness	<input checked="" type="checkbox"/> Range <input type="checkbox"/> Quartile range
<input type="checkbox"/> Harm. mean	<input type="checkbox"/> Std. err., Skewness	
	<input type="checkbox"/> Kurtosis	
	<input type="checkbox"/> Std. err., Kurtosis	

Select all stats | Reset | Save settings as default

Options:  Wghtd momts, DF =  W-1  N-1, MD deletion:  Casewise  Pairwise

Descriptive Statistics (prasad.vj.3\_5\_leuk) | Histogram: porod.tez(g) | Histogram: tez.21d | Histogram: leukoc.(109/l) | Histogram: ALT

Descriptive Statistics: pras... | Product-Moment and Parti... | Descriptive Statistics...

For Help, press F1

CAP NUM REC



File Edit View Insert Format Statistics Graphs Tools Data Workbook Window Help

Arial 10 B I U [Text Formatting Icons] [Grid Icons] [Cases: 30]

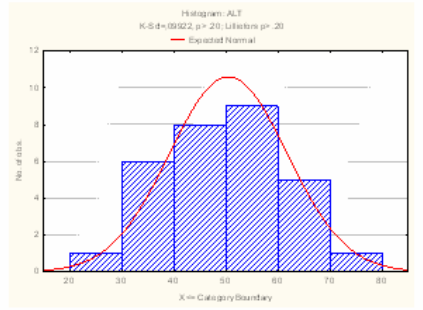
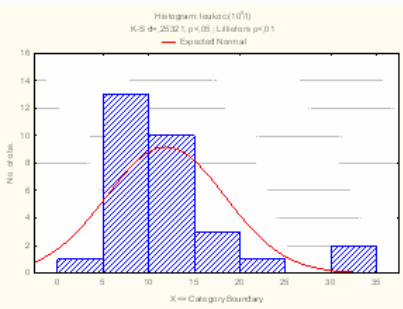
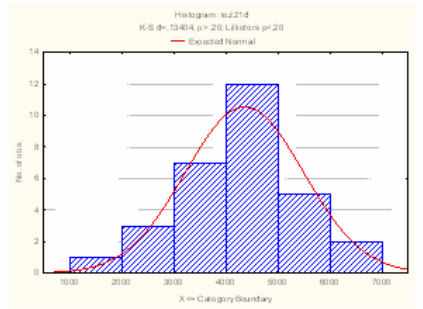
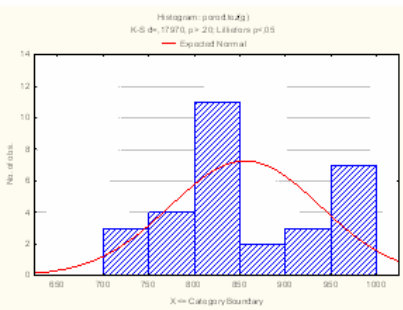
- Workbook3\*
- Basic Statistics/Tables
- Descriptive statistic
  - Descriptive Stat
  - Histogram: poro
  - Histogram: tež.
  - Histogram: leuk
  - Histogram: ALT
  - Descriptive Stat

Descriptive Statistics (prasad.vj.3\_5\_leuk)  
Include cases: 1:30

Variable	Valid N	Mean	Median	Mode	Frequency of Mode	Minimum	Maximum	Std.Dev.
leukoc.(10 <sup>9</sup> /l)	30	11,83667	10,20000	7,800000	4	4,100000	31,90000	6,544252

- Basic Statistics/Tables
- Descriptive statistics
  - Descriptive Stat
  - Histogram: porod.tež(g)
  - Histogram: tež.21d
  - Histogram: leukoc.(10<sup>9</sup>/l)
  - Histogram: ALT
  - Descriptive Stat

Descriptive Statistics (prasad.vj.3)				
Include cases: 1:30				
Variable	Valid N	Mean	Minimum	M
porod.tež(g)	30	855,933	705,000	
tež.21d	30	4356,667	1700,000	
leukoc.(10 <sup>9</sup> /l)	30	11,880	4,100	
ALT	30	50,467	30,000	

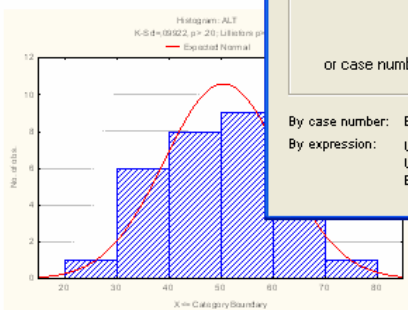
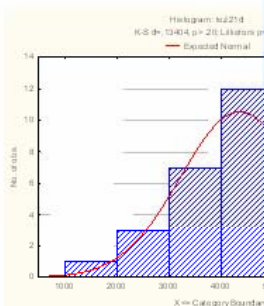
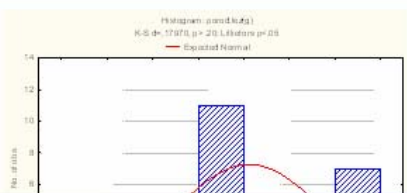


Descriptive Statistics (prasad.vj.3)				
Include cases: 1:30				
Variable	Valid N	Mean	Median	M
leukoc.(10 <sup>9</sup> /l)	30	11,88000	10,20000	M



- Workbook1\*
- Basic Statistics/Tables
- Descriptive statistic
  - Descriptive Stat
  - Histogram: porod.
  - Histogram: tež.
  - Histogram: eozin.
  - Histogram: ALT

Variable	Descriptive Statistics (prasad.vj.3)			
	Valid N	Mean	Minimum	Maximum
porod.tež(g)	30	855,933	705,000	1700,000
tež.21d	30	4356,667	1700,000	1700,000
eozin.	30	0,267	0,000	0,000
ALT	30	50,467	30,000	30,000



### Analysis/Graph Case Selection Conditions

Use current Spreadsheet selection conditions  
 Use selection conditions for this Analysis/Graph only

Enable Selection Conditions
 Review Variables
Clear All
OK

Include cases
 Cancel

All
 Open...

Specific, selected by:
 Save As...

By Expression:

or case number:

---

Exclude cases (from the set of cases defined in the 'Include cases' section)

By expression:

or case number:

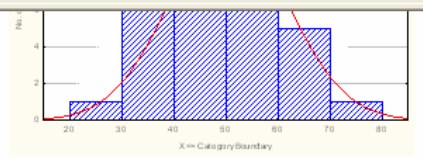
By case number: Enter case numbers and/or ranges. Example: 1, 3, 5-12

By expression: Use the same operators, functions, and syntax as in the spreadsheet formulas:  
 Use variable names or v1, v2... v0 is the case number (v0<4 means cases 1-3)  
 Examples: (a) v1=0 OR age>18 (b) gender=MALE AND v4<>(v5+v6)

- Workbook3\*
- Basic Statistics/Tables
- Descriptive statistic
  - Descriptive Stat
  - Histogram: porod.tez(g)
  - Histogram: tez.21d
  - Histogram: leukoc.(10<sup>9</sup>/l)
  - Histogram: leuk ALT
  - Descriptive Stat
  - Descriptive Stat

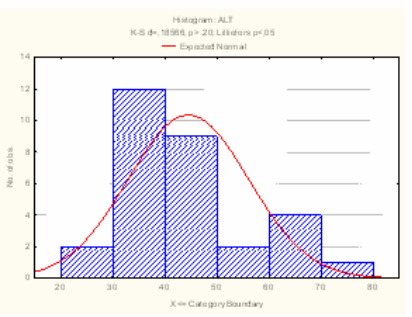
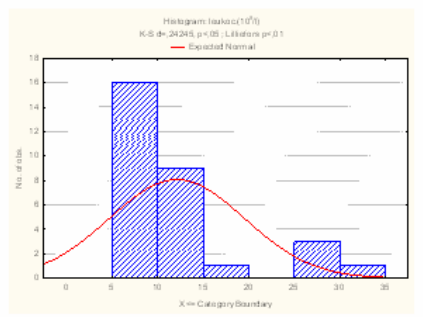
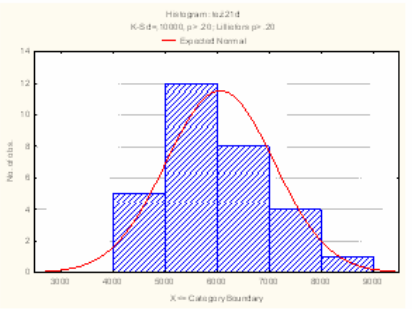
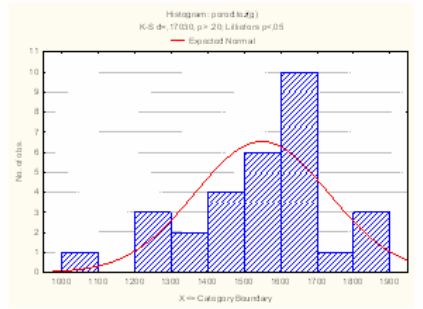
Descriptive Statistics (prasad.vj.3_5_leuk)					
Include cases: 31:60					
Variable	Valid N	Mean	Minimum	Maximum	Std.Dev.
porod.tez(g)	30	1548,333	1100,000	1845,000	183,149
tez.21d	30	6060,000	4150,000	8600,000	1037,331
leukoc.(10 <sup>9</sup> /l)	30	12,133	5,100	32,800	7,410
ALT	30	44,500	28,000	73,000	11,557

- basic Statistics/Tables (prasad.v.j.3)
- Descriptive statistics dialog
- Descriptive Statistics (prasad.v.j.3)
- Histogram: porod.tez(g)
- Histogram: tez.21d
- Histogram: leukoc.(10<sup>9</sup>/l)
- Histogram: ALT
- Descriptive Statistics (prasad.v.j.3)
- Descriptive Statistics (prasad.v.j.3)
- Descriptive Statistics (prasad.v.j.3)
- Histogram: porod.tez(g)
- Histogram: tez.21d
- Histogram: leukoc.(10<sup>9</sup>/l)
- Histogram: ALT

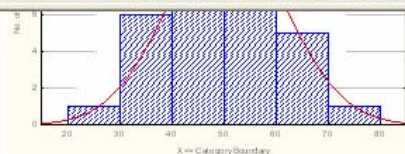


Descriptive Statistics (prasad.v.j.3)				
Include cases: 31:60				
Variable	Valid N	Mean	Median	N
leukoc.(10 <sup>9</sup> /l)	30	12,12667	9,650000	6,1

Descriptive Statistics (prasad.v.j.3)				
Include cases: 31:60				
Variable	Valid N	Mean	Median	N
porod.tez(g)	30	1548,333	1577,500	N
tez.21d	30	6060,000	5975,000	N
leukoc.(10 <sup>9</sup> /l)	30	12,127	9,650	6,1
ALT	30	44,500	41,000	N



tics/Tables (prasad.vj.3\_5\_le  
 ive statistics dialog  
 riptive Statistics (prasad.vj.3  
 gram: porod.tež(g)  
 gram: tež.21d  
 gram: leukoc.(109/l)  
 gram: ALT  
 riptive Statistics (prasad.vj.3  
 riptive Statistics (prasad.vj.3  
 riptive Statistics (prasad.vj.3  
 gram: porod.tež(g)  
 gram: tež.21d  
 gram: leukoc.(109/l)  
 gram: ALT  
 riptive Statistics (prasad.vj.3  
 gram: porod.tež(g)  
 gram: tež.21d  
 gram: leukoc.(109/l)  
 gram: ALT



Variable	Valid N	Mean
leukoc.(10 <sup>9</sup> /l)	30	12,126

Variable	Valid N	Mean
leukoc.(10 <sup>9</sup> /l)	31	12,126

### Analysis/Graph Case Selection Conditions

- Use current Spreadsheet selection conditions
- Use selection conditions for this Analysis/Graph only

Enable Selection Conditions

Review Variables

Clear All

OK

Cancel

Open...

Save As...

Include cases

All

Specific, selected by:

By Expression:

or case number: 61:90

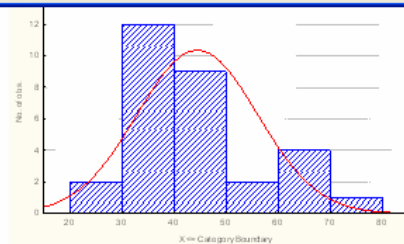
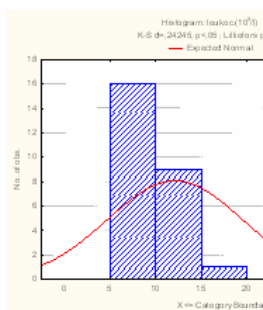
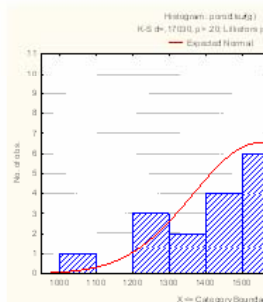
Exclude cases (from the set of cases defined in the 'Include cases' section)

By expression:

or case number:

By case number: Enter case numbers and/or ranges. Example: 1, 3, 5-12

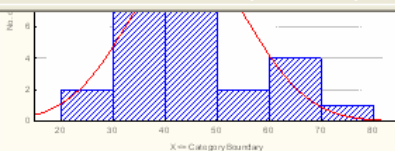
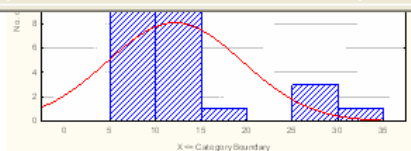
By expression: Use the same operators, functions, and syntax as in the spreadsheet formulas:  
 Use variable names or v1, v2... v0 is the case number (v0<4 means cases 1-3)  
 Examples: (a) v1=0 OR age>18 (b) gender=MALE AND v4<>(v5+v6)



- Workbook3\*
  - Basic Statistics/Tables
    - Descriptive statistic
      - Descriptive Stat
      - Histogram: porod.tez(g)
      - Histogram: tez.21d
      - Histogram: leukoc.(10<sup>9</sup>/l)
      - Histogram: leuk
      - Histogram: ALT
      - Descriptive Stat
      - Descriptive Stat
      - Descriptive Stat

Descriptive Statistics (prasad.vj.3_5_leuk)					
Include cases: 61:90					
Variable	Valid N	Mean	Minimum	Maximum	Std.Dev.
porod.tez(g)	30	2035,167	1905,000	2250,000	78,2181
tez.21d	30	8075,000	5700,000	9000,000	927,7104
leukoc.(10 <sup>9</sup> /l)	30	12,340	4,200	30,100	8,0818
ALT	30	40,633	30,000	50,000	4,8600

tics/Tables (prasad.vj.3\_5\_le  
 ive statistics dialog  
 riptive Statistics (prasad.vj.3  
 gram: porod.tež(g)  
 gram: tež.21d  
 gram: leukoc.(109/l)  
 gram: ALT  
 riptive Statistics (prasad.vj.3  
 riptive Statistics (prasad.vj.3  
 riptive Statistics (prasad.vj.3  
 gram: porod.tež(g)  
 gram: tež.21d  
 gram: leukoc.(109/l)  
 gram: ALT  
 riptive Statistics (prasad.vj.3  
 gram: porod.tež(g)  
 gram: tež.21d  
 gram: leukoc.(109/l)  
 gram: ALT



Descriptive Statistics (prasad.vj.3 Include cases: 61:90)				
Variable	Valid N	Mean	Median	M
porod.tež(g)	30	2035,167	2012,500	M
tež.21d	30	8075,000	8355,000	M
leukoc.(10 <sup>9</sup> /l)	30	12,310	9,350	M
ALT	30	40,633	40,500	M

