

Path analysis:

[https://en.wikipedia.org/wiki/Path\\_analysis\\_\(statistics\)](https://en.wikipedia.org/wiki/Path_analysis_(statistics))

Knihy

<https://www.amazon.com/Latent-Variable-Models-John-Loehlin/dp/113891607>

<https://books.google.cz/books?id=q9zhGIIYw7kC>

<https://onlinelibrary.wiley.com/doi/book/10.1002/9781118619179>

<https://www.enbook.cz/catalog/product/view/id/399613?gclid=EAIaIQobChMI9>

Plán práce:

korelace

jednoduchá regrese (2 proměnné)

vícenásobná regrese (3 proměnné)

parciální korelace

faktorová analýza (1 faktor)

faktorová analýza (2 a více faktorů)

v Excelu

v dalších softwarech

explorační vs. konfirmační FA

strukturní modelování

2

[}N2Mv4yR9gIVVOJ3Ch1PeA5KEAQYASABEgJojvD\\_BwE](#)

i	pohl (P)	vyska (V)	hmot (H)	mV - Vi	mH - Hi	zVi	zHi	zVi * zHi
1	0	172	87	-1.33333	11.66667	-0.11572	0.604136	-0.06991
2	1	169	61	-4.33333	-14.3333	-0.3761	-0.74222	0.279148
3	0	170	63	-3.33333	-12.3333	-0.2893	-0.63866	0.184767
4	1	166	85	-7.33333	9.666667	-0.63647	0.50057	-0.3186
5	0	183	77	9.666667	1.666667	0.838984	0.086305	0.072409
6	0	168	58	-5.33333	-17.3333	-0.46289	-0.89757	0.415475
7	1	170	65	-3.33333	-10.3333	-0.2893	-0.53509	0.154805
8	0	190	90	16.66667	14.66667	1.446524	0.759485	1.098613
9	1	165	63	-8.33333	-12.3333	-0.72326	-0.63866	0.461917
10	1	152	51	-21.3333	-24.3333	-1.85155	-1.26005	2.333055
11	0	187	82	13.66667	6.666667	1.186149	0.34522	0.409483
12	0	185	125	11.66667	49.66667	1.012567	2.571892	2.604212
13	0	193	97	19.66667	21.66667	1.706898	1.121966	1.915082
14	0	163	61	-10.3333	-14.3333	-0.89684	-0.74222	0.66566
15	1	150	44	-23.3333	-31.3333	-2.02513	-1.62254	3.285852
16	1	173	68	-0.33333	-7.33333	-0.02893	-0.37974	0.010986
17	1	165	58	-8.33333	-17.3333	-0.72326	-0.89757	0.64918
18	1	171	65	-2.33333	-10.3333	-0.20251	-0.53509	0.108363
19	0	185	90	11.66667	14.66667	1.012567	0.759485	0.769029
20	0	172	72	-1.33333	-3.33333	-0.11572	-0.17261	0.019975
21	1	168	63	-5.33333	-12.3333	-0.46289	-0.63866	0.295627
22	0	194	113	20.66667	37.66667	1.793689	1.950496	3.498583
23	1	174	83	0.666667	7.666667	0.057861	0.397004	0.022971
24	0	175	87	1.666667	11.66667	0.144652	0.604136	0.08739

m 173.3333 75.33333 -9.5E-15 4.74E-15  
sd 11.52188 19.31133

průměr 173.3333 75.33333  
smoch 11.52188 19.31133

rVH

rVH

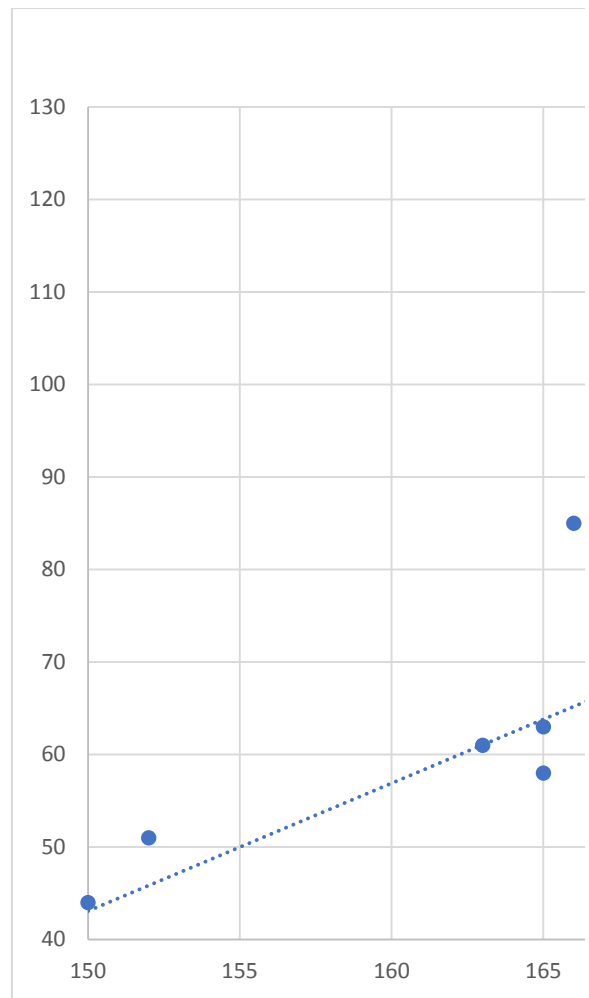
rPV

rPH

statistická \

$$t = \frac{r\sqrt{n}}{\sqrt{1-r^2}}$$

H.stř	e
73.49170306	13.50829694
69.34803493	-8.348034934
70.72925764	-7.729257642
65.20436681	19.79563319
88.68515284	-11.68515284
67.96681223	-9.966812227
70.72925764	-5.729257642
98.35371179	-8.35371179
63.8231441	-0.823144105
45.86724891	5.132751092
94.21004367	-12.21004367
91.44759825	33.55240175
102.4973799	-5.497379913
61.06069869	-0.06069869
43.10480349	0.895196507
74.87292576	-6.872925764
63.8231441	-5.823144105
72.11048035	-7.110480349
91.44759825	-1.447598253
73.49170306	-1.491703057
67.96681223	-4.966812227
103.8786026	9.12139738
76.25414847	6.745851528
77.63537118	9.364628821

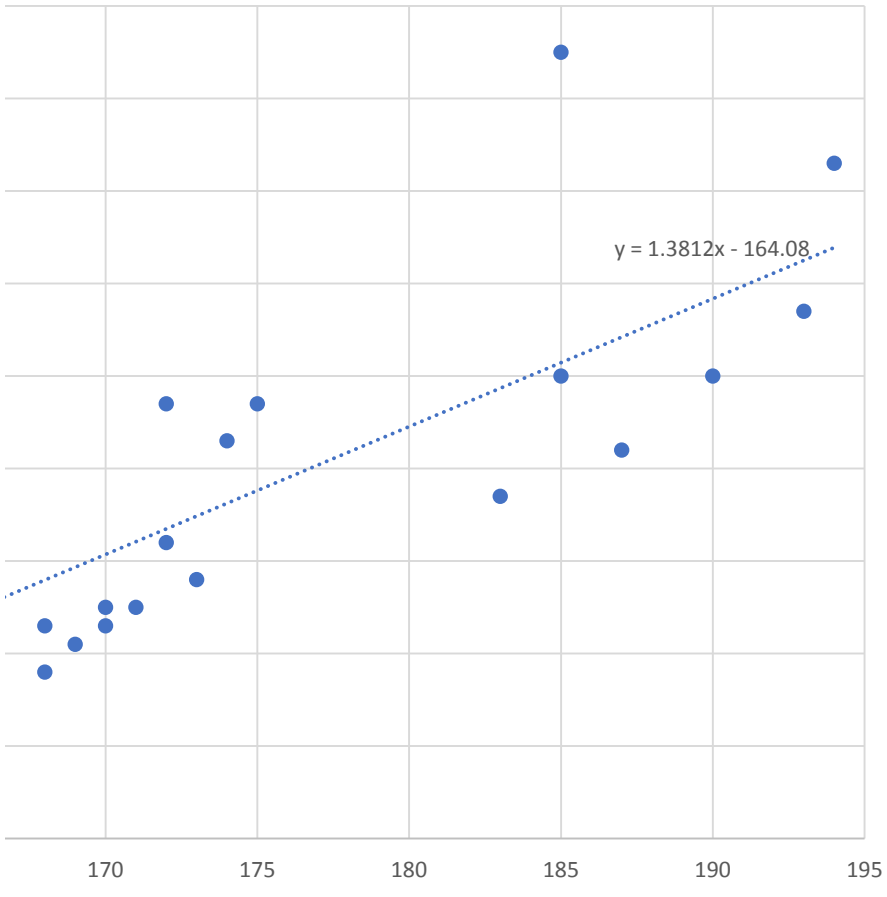


koeficient determinace		Matematický model	
0.824090059		H.stříška.i = a + b * V.i	
0.824090059	0.679124425	a	-164.079
-0.62030168	0.384774178	b	1.381223
-0.54261029	0.294425922		

významnost korelace

$\frac{-2}{\sqrt{2}}$	t	6.823665
$\frac{-2}{\sqrt{2}}$	df	22
$\frac{-2}{\sqrt{2}}$	p	8.3E-07

hmot (H)



i	pohl (P)	vyska (V)	hmot (H)	mV - Vi	mH - Hi	zVi	zHi	zVi * zHi
1	0	172	87	-1.33333	11.66667	-0.11572	0.604136	-0.06991
2	1	169	61	-4.33333	-14.3333	-0.3761	-0.74222	0.279148
3	0	170	63	-3.33333	-12.3333	-0.2893	-0.63866	0.184767
4	1	166	85	-7.33333	9.66667	-0.63647	0.50057	-0.3186
5	0	183	77	9.66667	1.66667	0.838984	0.086305	0.072409
6	0	168	58	-5.33333	-17.3333	-0.46289	-0.89757	0.415475
7	1	170	65	-3.33333	-10.3333	-0.2893	-0.53509	0.154805
8	0	190	90	16.66667	14.66667	1.446524	0.759485	1.098613
9	1	165	63	-8.33333	-12.3333	-0.72326	-0.63866	0.461917
10	1	152	51	-21.3333	-24.3333	-1.85155	-1.26005	2.333055
11	0	187	82	13.66667	6.66667	1.186149	0.34522	0.409483
12	0	185	125	11.66667	49.66667	1.012567	2.571892	2.604212
13	0	193	97	19.66667	21.66667	1.706898	1.121966	1.915082
14	0	163	61	-10.3333	-14.3333	-0.89684	-0.74222	0.66566
15	1	150	44	-23.3333	-31.3333	-2.02513	-1.62254	3.285852
16	1	173	68	-0.33333	-7.33333	-0.02893	-0.37974	0.010986
17	1	165	58	-8.33333	-17.3333	-0.72326	-0.89757	0.64918
18	1	171	65	-2.33333	-10.3333	-0.20251	-0.53509	0.108363
19	0	185	90	11.66667	14.66667	1.012567	0.759485	0.769029
20	0	172	72	-1.33333	-3.33333	-0.11572	-0.17261	0.019975
21	1	168	63	-5.33333	-12.3333	-0.46289	-0.63866	0.295627
22	0	194	113	20.66667	37.66667	1.793689	1.950496	3.498583
23	1	174	83	0.666667	7.66667	0.057861	0.397004	0.022971
24	0	175	87	1.666667	11.66667	0.144652	0.604136	0.08739

m 173.3333 75.33333 -9.5E-15 4.74E-15  
sd 11.52188 19.31133

průměr 173.3333 75.33333  
smoch 11.52188 19.31133

rVH

rVH

rPV

rPH

statistická v

$$t = \frac{r\sqrt{n}}{\sqrt{1-r^2}}$$

**Parciální korelace**

rVH.P

rPV.H

rPH.V



H.stř	e			
74.45185246	12.54814754			
68.52741618	-7.527416177			
71.79574982	-8.795749824	a	-153.973	
64.54326222	20.45673778	b1	1.328051	
89.06041697	-12.06041697	b2	-1.94028	
69.13964719	-11.13964719			
69.8554675	-4.855467497			
98.35677621	-8.356776206	Kritéria		
63.2152109	-0.215210901			
45.95054375	5.049456248	R	0.825063	R <sup>2</sup>
94.37262225	-12.37262225			
91.71651961	33.28348039	SS	2738.488	
102.3409302	-5.340930164			
62.49939059	-1.49939059			VÝSLEDEK
43.29444111	0.705558886			
73.83962145	-5.839621454			<u>Regresní :</u>
63.2152109	-5.215210901			Násobné R
71.18351882	-6.183518816			Hodnota sp
91.71651961	-1.716519611			Nastavená
74.45185246	-2.451852462			Chyba stř. l
67.19936486	-4.199364858			Pozorování
103.6689815	9.331018517			
75.16767277	7.832327227			<u>ANOVA</u>
78.43600642	8.563993581			
				<u>Regrese</u>
				Rezidua
				<u>Celkem</u>
				<u>Hranice</u>
				pohl (P)
				vyska (V)
				<u></u>
				<u></u>

koeficient determinace

Matematický model

0.824090059

H.stř.ška.i = a + b1 \* V.i + b2 \* P.i

0.824090059 0.679124425

-0.62030168 0.384774178

-0.54261029 0.294425922

v ýznamnost korelace

$\frac{-2}{-r^2}$	t	6.823665
	df	22
	p	8.3E-07

REZIDUA

Pozorování

0.739934279

-0.36388373

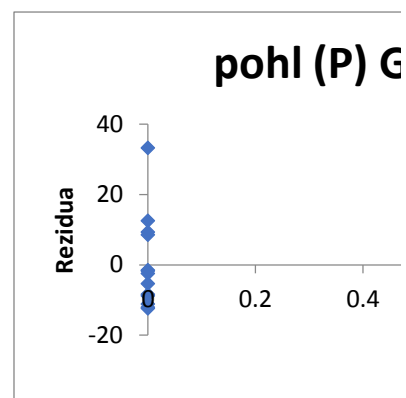
-0.0707296

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

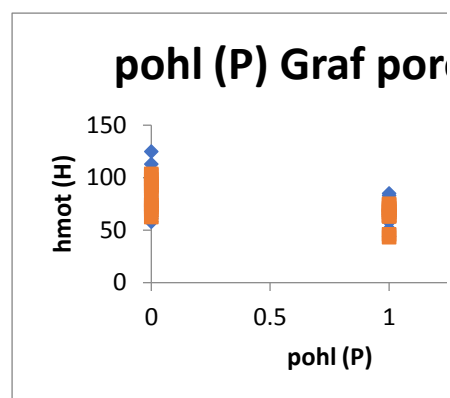


11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

0.68073



statistika
0.825063
0.68073
0.650323
11.41947
24



Rozdíl	SS	MS	F	významnost F
2	5838.845	2919.423	22.38749	6.22E-06
21	2738.488	130.4042		
23	8577.333			

Koeficienty	stř. hodr.	t Stat	Hodnota P	Dolní 95%	Horní 95%	Dolní 95,0%	Horní 95,0%
-153.985	47.47069	-3.2438	0.003887	-252.706	-55.2646	-252.706	-55.2646
-1.93805	5.964391	-0.32494	0.748443	-14.3417	10.46558	-14.3417	10.46558
1.328117	0.263476	5.040746	5.44E-05	0.780188	1.876045	0.780188	1.876045

PRAVDĚPODOBNOST

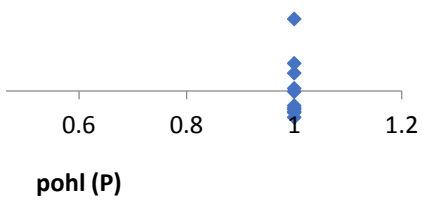
řávaná hmo	Residua	novaná rezidua	Percentil	hmot (H)
74.45079	12.54921	1.150072	2.083333	44
68.52838	-7.52838	-0.68994	6.25	51
71.79455	-8.79455	-0.80598	10.41667	58
64.54403	20.45597	1.874686	14.58333	58
89.06007	-12.0601	-1.10524	18.75	61
69.13832	-11.1383	-1.02077	22.91667	61
69.8565	-4.8565	-0.44507	27.08333	63
98.35689	-8.35689	-0.76587	31.25	63
63.21592	-0.21592	-0.01979	35.41667	63
45.9504	5.049601	0.46277	39.58333	65

hmot (H)

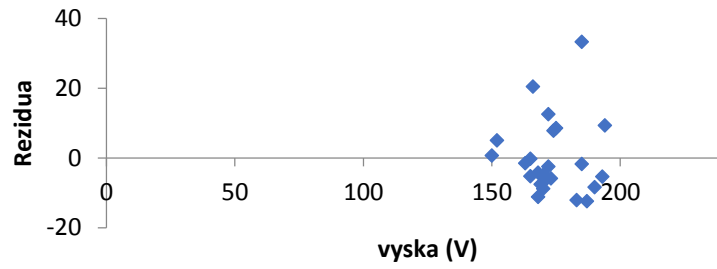
94.37254	-12.3725	-1.13388	43.75	65
91.7163	33.2837	3.050282	47.91667	68
102.3412	-5.34124	-0.4895	52.08333	72
62.49774	-1.49774	-0.13726	56.25	77
43.29417	0.705834	0.064686	60.41667	82
73.84085	-5.84085	-0.53528	64.58333	83
63.21592	-5.21592	-0.47801	68.75	85
71.18461	-6.18461	-0.56679	72.91667	87
91.7163	-1.7163	-0.15729	77.08333	87
74.45079	-2.45079	-0.2246	81.25	90
67.20027	-4.20027	-0.38493	85.41667	90
103.6694	9.330648	0.855107	89.58333	97
75.16896	7.831035	0.717675	93.75	113
78.43514	8.564864	0.784926	97.91667	125

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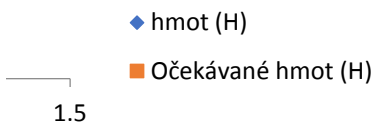
**Graf s rezidui**



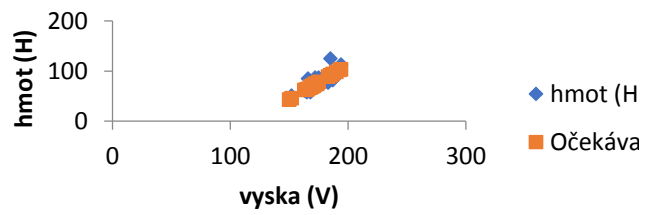
**vyska (V) Graf s rezidui**



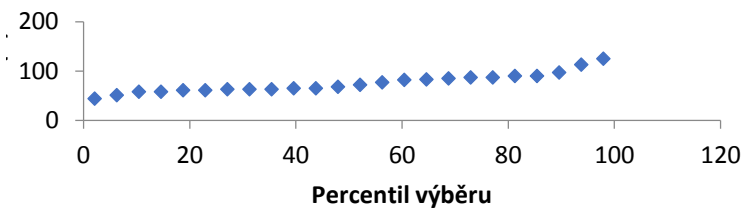
**ovnění hodnot**



**vyska (V) Graf porovnáání hodnot**



**Graf s rozdělením pravděpodobnosti**







l)  
iné hmot (H)

i	pohl (P)	vyska (V)	hmot (H)	mV - Vi	mH - Hi	zVi	zHi	zPi
1	0	172	87	-1.33333	11.66667	-0.11572	0.604136	0.900498
2	1	169	61	-4.33333	-14.3333	-0.3761	-0.74222	-1.06423
3	0	170	63	-3.33333	-12.3333	-0.2893	-0.63866	0.900498
4	1	166	85	-7.33333	9.66667	-0.63647	0.50057	-1.06423
5	0	183	77	9.66667	1.66667	0.838984	0.086305	0.900498
6	0	168	58	-5.33333	-17.3333	-0.46289	-0.89757	0.900498
7	1	170	65	-3.33333	-10.3333	-0.2893	-0.53509	-1.06423
8	0	190	90	16.66667	14.66667	1.446524	0.759485	0.900498
9	1	165	63	-8.33333	-12.3333	-0.72326	-0.63866	-1.06423
10	1	152	51	-21.3333	-24.3333	-1.85155	-1.26005	-1.06423
11	0	187	82	13.66667	6.66667	1.186149	0.34522	0.900498
12	0	185	125	11.66667	49.66667	1.012567	2.571892	0.900498
13	0	193	97	19.66667	21.66667	1.706898	1.121966	0.900498
14	0	163	61	-10.3333	-14.3333	-0.89684	-0.74222	0.900498
15	1	150	44	-23.3333	-31.3333	-2.02513	-1.62254	-1.06423
16	1	173	68	-0.33333	-7.33333	-0.02893	-0.37974	-1.06423
17	1	165	58	-8.33333	-17.3333	-0.72326	-0.89757	-1.06423
18	1	171	65	-2.33333	-10.3333	-0.20251	-0.53509	-1.06423
19	0	185	90	11.66667	14.66667	1.012567	0.759485	0.900498
20	0	172	72	-1.33333	-3.33333	-0.11572	-0.17261	0.900498
21	1	168	63	-5.33333	-12.3333	-0.46289	-0.63866	-1.06423
22	0	194	113	20.66667	37.66667	1.793689	1.950496	0.900498
23	1	174	83	0.666667	7.66667	0.057861	0.397004	-1.06423
24	0	175	87	1.666667	11.66667	0.144652	0.604136	0.900498
m	0.458333	173.3333	75.33333	-9.5E-15	4.74E-15	-8.2E-16	2.04E-16	0
sd	0.508977	11.52188	19.31133			1	1	1
průměr smodch		173.3333	75.33333					
		11.52188	19.31133					

rVH

rVH

rPV

rPH

statistická \

$$t = \frac{r\sqrt{n}}{\sqrt{1-r^2}}$$

**Parciální korelace**

rVH.P

rPV.H

rPH.V

H.stř	e.H	P.stř	e.P	
73.49170306	13.50829694	0.494869	-0.49487	
69.34803493	-8.348034934	0.577074	0.422926	
70.72925764	-7.729257642	0.549672	-0.54967	
65.20436681	19.79563319	0.659279	0.340721	
88.68515284	-11.68515284	0.19345	-0.19345	
67.96681223	-9.966812227	0.604476	-0.60448	
70.72925764	-5.729257642	0.549672	0.450328	
98.35371179	-8.35371179	0.001638	-0.00164	
63.8231441	-0.823144105	0.686681	0.313319	
45.86724891	5.132751092	1.042904	-0.0429	
94.21004367	-12.21004367	0.083843	-0.08384	Předpověď
91.44759825	33.55240175	0.138646	-0.13865	
102.4973799	-5.497379913	-0.08057	0.080568	b
61.06069869	-0.06069869	0.741485	-0.74148	a
43.10480349	0.895196507	1.097707	-0.09771	
74.87292576	-6.872925764	0.467467	0.532533	Předpověď
63.8231441	-5.823144105	0.686681	0.313319	
72.11048035	-7.110480349	0.522271	0.477729	b
91.44759825	-1.447598253	0.138646	-0.13865	a
73.49170306	-1.491703057	0.494869	-0.49487	
67.96681223	-4.966812227	0.604476	0.395524	
103.8786026	9.12139738	-0.10797	0.107969	
76.25414847	6.745851528	0.440066	0.559934	
77.63537118	9.364628821	0.412664	-0.41266	

koeficient determinace

0

0.824090059	0.679124425
-0.62030168	0.384774178
-0.54261029	0.294425922

významnost korelace

$\frac{-2}{\sqrt{r^2}}$	t	6.823665
	df	22
	p	8.3E-07

pomocí vzorce Excelu (pearson)

0.739934279	
-0.36388373	
-0.0707296	-0.07073



H z V

1.381222707  
-164.0786026

P z V

-0.027401747  
5.207969432

b1
b2
b3
bk

x

b1	b2	b3	...	bk
----	----	----	-----	----

1
2
3
4
5

x

10	20	30	40	50
----	----	----	----	----

1	-1
2	-2
3	-3
4	-4
5	-5

10	20	30	40	50
1000	2000	3000	4000	5000

1	-1
2	-2
3	-3
4	-4
5	-5

1	2	3	4	5
-1	-2	-3	-4	-5

b1b1	b1b2	b1b3	...	b1bk
b2b1	b2b2	b2b3		b2bk
b3b1				

10	20	30	40	50
20	40	60	80	100
30	60	90	120	150
40	80	120	160	200
50	100	150	200	250

-990	-1980	-2970	-3960	-4950
-1980	-3960	-5940	-7920	-9900
-2970	-5940	-8910	-11880	-14850
-3960	-7920	-11880	-15840	-19800
-4950	-9900	-14850	-19800	-24750

2	4	6	8	10
4	8	12	16	20
6	12	18	24	30
8	16	24	32	40
10	20	30	40	50

	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>oXY</i>	<i>oXZ</i>	<i>oYZ</i>	<i>sXY</i>	<i>sXZ</i>
<i>X</i>	1							
<i>Y</i>	-0.02139	1						
<i>Z</i>	0.008204	0.10395	1					
<i>oXY</i>	0.612812	0.776943	0.087329	1				
<i>oXZ</i>	0.533446	0.076667	0.850182	0.396518	1			
<i>oYZ</i>	-0.00639	0.664853	0.812039	0.521484	0.683511	1		
<i>sXY</i>	0.68543	0.674834	0.09277	0.965021	0.439354	0.465655	1	
<i>sXZ</i>	0.709488	0.069972	0.670419	0.502082	0.940632	0.544572	0.564359	1
<i>XYZ</i>	0.005191	0.725392	0.729466	0.576626	0.619761	0.973507	0.523814	0.497851
<i>uXY</i>	0.514931	0.837859	0.080486	0.986512	0.339195	0.552089	0.91649	0.426878
<i>uXZ</i>	0.361227	0.07926	0.929568	0.290118	0.976475	0.744654	0.320944	0.851439
<i>uYZ</i>	-0.01028	0.588626	0.857485	0.458785	0.719904	0.989404	0.406153	0.573862
<i>vXYZ</i>	0.514343	0.591023	0.582405	0.79104	0.76344	0.784213	0.828867	0.804001
<i>uXYZ</i>	0.288692	0.55358	0.823728	0.619348	0.848758	0.943486	0.584905	0.748247

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<i>xYZ</i>	<i>uXY</i>	<i>uXZ</i>	<i>uYZ</i>	<i>vXYZ</i>	<i>uXYZ</i>
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	1				
0.60844		1			
0.674547	0.250668		1		
0.935152	0.488337	0.785733		1	
0.818281	0.749744	0.702794	0.748841		1
0.898933	0.622616	0.86724	0.951494	0.858283	

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i	gX	gY	gZ	X	Y	Z	oXY	oXZ	
1	13	13	13	15	11	7	21	36	64
2	9	14	14	20	5	13	7	36	24
3	5	7	7	19	8	13	21	42	58
4	11	5	5	16	7	9	18	32	50
5	11	14	14	15	6	9	14	30	40
6	8	9	9	11	11	12	15	46	52
7	13	8	8	15	11	10	10	42	42
8	9	6	6	8	5	13	8	36	26
9	6	9	9	17	8	9	19	34	54
10	4	16	16	20	10	17	18	54	56
11	8	7	7	8	9	10	18	38	54
12	4	12	12	18	6	17	8	46	28
13	4	9	9	8	7	8	18	30	50
14	13	12	12	11	11	6	20	34	62
15	4	8	8	18	6	16	13	44	38
16	8	7	7	20	12	6	20	36	64
17	6	8	8	22	13	6	13	38	52
18	13	13	13	14	9	15	16	48	50
19	11	9	9	9	6	9	20	30	52
20	7	12	12	8	6	5	22	22	56
21	7	12	12	8	4	11	22	30	52
22	8	6	6	19	10	14	16	48	52
23	5	9	9	7	13	11	8	48	42
24	3	6	6	15	12	8	9	40	42
25	4	7	7	16	10	16	22	52	64
26	9	12	12	21	9	6	15	30	48
27	12	13	13	21	5	11	21	32	52
28	6	14	14	16	7	12	15	38	44
29	9	12	12	22	12	7	15	38	54
30	7	11	11	8	6	15	10	42	32
31	7	11	11	11	10	11	22	42	64
32	3	16	16	14	4	10	13	28	34
33	8	16	16	7	11	11	12	44	46
34	7	13	13	19	8	14	7	44	30
35	10	6	6	15	11	15	22	52	66
36	7	15	15	15	8	9	19	34	54
37	12	12	12	21	11	17	20	56	62
38	5	15	15	16	9	7	16	32	50
39	3	12	12	9	10	17	18	54	56
40	11	17	17	9	10	10	19	40	58
41	7	17	17	21	3	10	18	26	42
42	6	6	6	19	9	12	8	42	34
43	5	6	6	15	4	7	15	22	38
44	5	14	14	16	6	14	16	40	44
45	6	13	13	15	10	5	17	30	54
46	3	11	11	19	12	16	22	56	68
47	6	14	14	13	6	6	9	24	30
48	5	11	11	22	6	16	21	44	54

49	5	6	20	6	16	9	44	30
50	12	8	16	8	10	14	36	44
51	9	5	9	6	13	21	38	54
52	12	15	21	12	6	16	36	56
53	8	9	8	4	12	15	32	38
54	13	7	15	11	12	13	46	48
55	12	12	15	10	11	15	42	50
56	4	9	13	13	7	16	40	58
57	10	11	10	6	9	17	30	46
58	4	16	8	7	13	22	40	58
59	7	12	20	9	17	20	52	58
60	5	11	10	6	14	7	40	26
61	9	16	15	12	13	13	50	50
62	6	13	8	10	12	19	44	58
63	9	13	7	11	10	16	42	54
64	8	7	14	12	14	14	52	52
65	11	6	12	3	8	9	22	24
66	13	9	9	6	17	13	46	38
67	9	11	16	5	16	9	42	28
68	8	17	17	4	16	21	40	50
69	9	5	16	12	9	9	42	42
70	11	12	21	11	9	11	40	44
71	5	17	15	11	13	14	48	50
72	5	9	11	4	6	15	20	38
73	6	11	20	13	13	8	52	42
74	6	6	18	10	17	18	54	56
75	5	9	16	13	16	16	58	58
76	12	12	14	3	5	8	16	22
77	7	15	18	7	12	8	38	30
78	4	15	9	12	10	17	44	58
79	4	12	21	10	10	13	40	46
80	6	9	19	7	14	21	42	56
81	11	17	12	7	16	18	46	50
82	6	10	10	7	14	13	42	40
83	13	12	11	11	15	20	52	62
84	12	8	12	5	16	19	42	48
85	13	16	15	9	9	18	36	54
86	4	16	7	5	13	19	36	48
87	7	12	9	6	11	17	34	46
88	4	5	17	13	17	9	60	44
89	9	9	22	9	6	8	30	34
90	4	10	19	6	9	13	30	38
91	9	6	17	4	8	12	24	32
92	12	17	11	7	16	13	46	40
93	12	7	19	5	12	15	34	40
94	11	15	10	13	9	7	44	40
95	7	5	12	12	14	21	52	66
96	4	7	10	8	7	10	30	36
97	12	8	19	12	15	15	54	54
98	5	16	22	9	16	21	50	60

99	8	14	9	8	17	10	50	36
100	12	10	15	12	6	8	36	40



oYZ	sXY	sXZ	xYZ	uXY	uXZ	uYZ	vXYZ	uXYZ
56	77	231	147	13.0384	23.70654	22.13594	1617	24.71841
40	65	35	91	13.92839	8.602325	14.76482	455	15.58846
68	104	168	273	15.26434	22.47221	24.69818	2184	25.96151
54	63	126	162	11.40175	19.31321	20.12461	1134	21.30728
46	54	84	126	10.81665	15.23155	16.64332	756	17.69181
54	132	165	180	16.27882	18.60108	19.20937	1980	22.13594
40	110	110	100	14.86607	14.86607	14.14214	1100	17.91647
42	65	40	104	13.92839	9.433981	15.26434	520	16.06238
56	72	152	171	12.04159	20.61553	21.0238	1368	22.49444
70	170	180	306	19.72308	20.59126	24.75884	3060	26.70206
56	90	162	180	13.45362	20.12461	20.59126	1620	22.47221
50	102	48	136	18.02776	10	18.78829	816	19.72308
52	56	126	144	10.63015	19.31321	19.69772	1008	20.90454
52	66	220	120	12.52996	22.82542	20.88061	1320	23.60085
58	96	78	208	17.08801	14.31782	20.61553	1248	21.47091
52	72	240	120	13.41641	23.32381	20.88061	1440	24.08319
38	78	169	78	14.31782	18.38478	14.31782	1014	19.33908
62	135	144	240	17.49286	18.35756	21.93171	2160	23.70654
58	54	120	180	10.81665	20.88061	21.93171	1080	22.73763
54	30	132	110	7.81025	22.80351	22.56103	660	23.34524
66	44	88	242	11.7047	22.36068	24.59675	968	24.91987
60	140	160	224	17.20465	18.86796	21.26029	2240	23.49468
38	143	104	88	17.02939	15.26434	13.60147	1144	18.81489
34	96	108	72	14.42221	15	12.04159	864	17
76	160	220	352	18.86796	24.16609	27.20294	3520	28.98275
42	54	135	90	10.81665	17.49286	16.15549	810	18.49324
64	55	105	231	12.08305	21.58703	23.70654	1155	24.22808
54	84	105	180	13.89244	16.55295	19.20937	1260	20.44505
44	84	180	105	13.89244	19.20937	16.55295	1260	20.44505
50	90	60	150	16.15549	11.6619	18.02776	900	19
66	110	220	242	14.86607	24.16609	24.59675	2420	26.55184
46	40	52	130	10.77033	13.60147	16.40122	520	16.88194
46	121	132	132	15.55635	16.27882	16.27882	1452	19.64688
42	112	56	98	16.12452	10.63015	15.65248	784	17.5784
74	165	242	330	18.60108	24.59675	26.62705	3630	28.80972
56	72	152	171	12.04159	20.61553	21.0238	1368	22.49444
74	187	220	340	20.24846	22.82542	26.24881	3740	28.4605
46	63	144	112	11.40175	18.35756	17.46425	1008	19.64688
70	170	180	306	19.72308	20.59126	24.75884	3060	26.70206
58	100	190	190	14.14214	21.47091	21.47091	1900	23.68544
56	30	54	180	10.44031	18.24829	20.59126	540	20.80865
40	108	72	96	15	12.04159	14.42221	864	17
44	28	60	105	8.062258	15.52417	16.55295	420	17.02939
60	84	96	224	15.23155	17.08801	21.26029	1344	22.09072
44	50	170	85	11.18034	19.72308	17.72005	850	20.34699
76	192	264	352	20	25.05993	27.20294	4224	29.73214
30	36	54	54	8.485281	10.81665	10.81665	324	12.36932
74	96	126	336	17.08801	21.84033	26.40076	2016	27.07397



54	136	80	170	18.78829	12.80625	19.72308	1360	21.2838
28	72	96	48	13.41641	14.42221	10	576	15.6205

<b>R</b>	X	Y	Z	oXY	oXZ	oYZ	sXY	
X		1	-0.02139	0.008204	0.612812	0.533446	-0.00639	0.68543
Y	-0.02139		1	0.10395	0.776943	0.076667	0.664853	0.674834
Z	0.008204	0.10395		1	0.087329	0.850182	0.812039	0.09277
oXY	0.612812	0.776943	0.087329		1	0.396518	0.521484	0.965021
oXZ	0.533446	0.076667	0.850182	0.396518		1	0.683511	0.439354
oYZ	-0.00639	0.664853	0.812039	0.521484	0.683511		1	0.465655
sXY	0.68543	0.674834	0.09277	0.965021	0.439354	0.465655		1
sXZ	0.709488	0.069972	0.670419	0.502082	0.940632	0.544572	0.564359	
xYZ	0.005191	0.725392	0.729466	0.576626	0.619761	0.973507	0.523814	
uXY	0.514931	0.837859	0.080486	0.986512	0.339195	0.552089	0.91649	
uXZ	0.361227	0.07926	0.929568	0.290118	0.976475	0.744654	0.320944	
uYZ	-0.01028	0.588626	0.857485	0.458785	0.719904	0.989404	0.406153	
vXYZ	0.514343	0.591023	0.582405	0.79104	0.76344	0.784213	0.828867	
uXYZ	0.288692	0.55358	0.823728	0.619348	0.848758	0.943486	0.584905	

<b>B</b>	F1	F2	F3	<b>B<sup>T</sup></b>	X	Y	
X	0	0.9907	0	F1		0	0.995864
Y	0.995864	0	0.041514	F2	0.9907		0
Z	0.06086	0.007588	0.997988	F3		0	0.041514
oXY	0.780351	0.617899	0.035622				
oXZ	0.044298	0.52844	0.845712				
oYZ	0.632452	0	0.774115	SS	0.030482		
sXY	0.682533	0.706137	0.044711				
sXZ	0.043476	0.725201	0.665008				
xYZ	0.704156	0.011665	0.689513				
uXY	0.841368	0.513996	0.027401				
uXZ	0.044206	0.353803	0.925729				
uYZ	0.549448	0	0.824735				
vXYZ	0.576961	0.546955	0.545256				
uXYZ	0.522404	0.283894	0.79289				

<b>R.stř</b>	X	Y	Z	oXY	oXZ	oYZ	sXY		
X	0.981486		0	0.007518	0.612152	0.523526	0	0.69957	
Y		0	0.993469	0.102038	0.778602	0.079224	0.661973	0.681566	
Z	0.007518	0.102038	0.999742	0.087731	0.850717	0.811048	0.811048	0.091518	
oXY	0.612152	0.778602	0.087731		0.992015	0.391216	0.52111	0.970529	
oXZ	0.523526	0.079224	0.850717	0.391216		0.996441	0.682695	0.441199	
oYZ		0	0.661973	0.811048	0.52111		0.682695	0.999249	0.466281
sXY	0.69957	0.681566	0.091518	0.970529	0.441199	0.466281		0.96648	
sXZ	0.718456	0.070903	0.671819	0.505716	0.947557	0.542289	0.542289	0.571498	
xYZ	0.011557	0.729868	0.731069	0.581259	0.620487	0.979107	0.979107	0.519676	
uXY	0.509215	0.839026	0.082452	0.975136	0.332061	0.553336	0.553336	0.938438	
uXZ	0.350513	0.082454	0.929241	0.286087	0.971822	0.744579	0.744579	0.321396	
uYZ		0	0.581414	0.856515	0.458141	0.721828	0.985939	0.411891	
vXYZ	0.541868	0.597211	0.583424	0.807618	0.775722	0.786991	0.786991	0.804399	
uXYZ	0.281254	0.55316	0.825243	0.611321	0.84372	0.944184	0.944184	0.592478	

<b>R.rezid</b>	X	Y	Z	oXY	oXZ	oYZ	sXY
X	0.018514	-0.02139	0.000687	0.00066	0.00992	-0.00639	-0.01414
Y	-0.02139	0.006531	0.001911	-0.00166	-0.00256	0.00288	-0.00673
Z	0.000687	0.001911	0.000258	-0.0004	-0.00053	0.000991	0.001252
oXY	0.00066	-0.00166	-0.0004	0.007985	0.005301	0.000374	-0.00551
oXZ	0.00992	-0.00256	-0.00053	0.005301	0.003559	0.000816	-0.00185
oYZ	-0.00639	0.00288	0.000991	0.000374	0.000816	0.000751	-0.00063
sXY	-0.01414	-0.00673	0.001252	-0.00551	-0.00185	-0.00063	0.03352
sXZ	-0.00897	-0.00093	-0.0014	-0.00363	-0.00692	0.002283	-0.00714
xYZ	-0.00637	-0.00448	-0.0016	-0.00463	-0.00073	-0.0056	0.004138
uXY	0.005715	-0.00117	-0.00197	0.011376	0.007134	-0.00125	-0.02195
uXZ	0.010714	-0.00319	0.000326	0.004031	0.004652	7.57E-05	-0.00045
uYZ	-0.01028	0.007212	0.00097	0.000644	-0.00192	0.003465	-0.00574
vXYZ	-0.02752	-0.00619	-0.00102	-0.01658	-0.01228	-0.00278	0.024468
uXYZ	0.007437	0.00042	-0.00152	0.008027	0.005038	-0.0007	-0.00757



sXZ	xYZ	uXY	uXZ	uYZ	vXYZ	uXYZ
0.709488	0.005191	0.514931	0.361227	-0.01028	0.514343	0.288692
0.069972	0.725392	0.837859	0.07926	0.588626	0.591023	0.55358
0.670419	0.729466	0.080486	0.929568	0.857485	0.582405	0.823728
0.502082	0.576626	0.986512	0.290118	0.458785	0.79104	0.619348
0.940632	0.619761	0.339195	0.976475	0.719904	0.76344	0.848758
0.544572	0.973507	0.552089	0.744654	0.989404	0.784213	0.943486
0.564359	0.523814	0.91649	0.320944	0.406153	0.828867	0.584905
1	0.497851	0.426878	0.851439	0.573862	0.804001	0.748247
0.497851	1	0.60844	0.674547	0.935152	0.818281	0.898933
0.426878	0.60844	1	0.250668	0.488337	0.749744	0.622616
0.851439	0.674547	0.250668	1	0.785733	0.702794	0.86724
0.573862	0.935152	0.488337	0.785733	1	0.748841	0.951494
0.804001	0.818281	0.749744	0.702794	0.748841	1	0.858283
0.748247	0.898933	0.622616	0.86724	0.951494	0.858283	1

Z	oXY	oXZ	oYZ	sXY	sXZ	xYZ	uXY	uXZ
0.06086	0.780351	0.044298	0.632452	0.682533	0.043476	0.704156	0.841368	0.044206
0.007588	0.617899	0.52844	0	0.706137	0.725201	0.011665	0.513996	0.353803
0.997988	0.035622	0.845712	0.774115	0.044711	0.665008	0.689513	0.027401	0.925729

sXZ	xYZ	uXY	uXZ	uYZ	vXYZ	uXYZ
0.718456	0.011557	0.509215	0.350513	0	0.541868	0.281254
0.070903	0.729868	0.839026	0.082454	0.581414	0.597211	0.55316
0.671819	0.731069	0.082452	0.929241	0.856515	0.583424	0.825243
0.505716	0.581259	0.975136	0.286087	0.458141	0.807618	0.611321
0.947557	0.620487	0.332061	0.971822	0.721828	0.775722	0.84372
0.542289	0.979107	0.553336	0.744579	0.985939	0.786991	0.944184
0.571498	0.519676	0.938438	0.321396	0.411891	0.804399	0.592478
0.970042	0.497605	0.427551	0.874117	0.572343	0.784336	0.755871
0.497605	0.971401	0.617344	0.673557	0.955563	0.788613	0.917874
0.427551	0.617344	0.972842	0.244413	0.484887	0.78151	0.607181
0.874117	0.673557	0.244413	0.984104	0.78777	0.723779	0.857538
0.572343	0.955563	0.484887	0.78777	0.982081	0.766702	0.940959
0.784336	0.788613	0.78151	0.723779	0.766702	0.929349	0.889013
0.755871	0.917874	0.607181	0.857538	0.940959	0.889013	0.982178

sXZ	xYZ	uXY	uXZ	uYZ	vXYZ	uXYZ
-0.00897	-0.00637	0.005715	0.010714	-0.01028	-0.02752	0.007437
-0.00093	-0.00448	-0.00117	-0.00319	0.007212	-0.00619	0.00042
-0.0014	-0.0016	-0.00197	0.000326	0.00097	-0.00102	-0.00152
-0.00363	-0.00463	0.011376	0.004031	0.000644	-0.01658	0.008027
-0.00692	-0.00073	0.007134	0.004652	-0.00192	-0.01228	0.005038
0.002283	-0.0056	-0.00125	7.57E-05	0.003465	-0.00278	-0.0007
-0.00714	0.004138	-0.02195	-0.00045	-0.00574	0.024468	-0.00757
0.029958	0.000246	-0.00067	-0.02268	0.001519	0.019664	-0.00762
0.000246	0.028599	-0.0089	0.00099	-0.02041	0.029668	-0.01894
-0.00067	-0.0089	0.027158	0.006255	0.00345	-0.03177	0.015435
-0.02268	0.00099	0.006255	0.015896	-0.00204	-0.02099	0.009702
0.001519	-0.02041	0.00345	-0.00204	0.017919	-0.01786	0.010535
0.019664	0.029668	-0.03177	-0.02099	-0.01786	0.070651	-0.03073
-0.00762	-0.01894	0.015435	0.009702	0.010535	-0.03073	0.017822





uYZ	vXYZ	uXYZ
0.549448	0.576961	0.522404
0	0.546955	0.283894
0.824735	0.545256	0.79289

i	gX	gY	gZ	X	Y	Z	oXY	oXZ	
1	12	10	18	11	7	21	36	64	
2	5	14	12	5	13	7	36	24	
3	11	11	11	8	13	21	42	58	
4	6	16	21	7	9	18	32	50	
5	5	13	22	6	9	14	30	40	
6	11	6	18	11	12	15	46	52	
7	9	7	15	11	10	10	42	42	
8	8	13	11	5	13	8	36	26	
9	9	13	16	8	9	19	34	54	
10	5	10	22	10	17	18	54	56	
11	12	17	10	9	10	18	38	54	
12	11	15	9	6	17	8	46	28	
13	10	5	7	7	8	18	30	50	
14	5	15	11	11	6	20	34	62	
15	8	8	11	6	16	13	44	38	
16	8	14	20	12	6	20	36	64	
17	4	13	22	13	6	13	38	52	
18	9	7	11	9	15	16	48	50	
19	10	10	10	6	9	20	30	52	
20	3	13	9	6	5	22	22	56	
21	10	5	18	4	11	22	30	52	
22	7	10	21	10	14	16	48	52	
23	3	14	12	13	11	8	48	42	
24	12	11	10	12	8	9	40	42	
25	4	6	11	10	16	22	52	64	
26	13	16	14	9	6	15	30	48	
27	8	6	21	5	11	21	32	52	
28	9	14	17	7	12	15	38	44	
29	3	7	16	12	7	15	38	54	
30	7	8	15	6	15	10	42	32	
31	10	5	14	10	11	22	42	64	
32	5	11	15	4	10	13	28	34	
33	11	10	13	11	11	12	44	46	
34	12	10	10	8	14	7	44	30	
35	9	15	18	11	15	22	52	66	
36	8	13	20	8	9	19	34	54	
37	7	11	8	11	17	20	56	62	
38	6	8	8	9	7	16	32	50	
39	12	6	11	10	17	18	54	56	
40	12	12	18	10	10	19	40	58	
41	7	8	14	3	10	18	26	42	
42	7	13	10	9	12	8	42	34	
43	8	12	8	4	7	15	22	38	
44	10	7	12	6	14	16	40	44	
45	13	6	10	10	5	17	30	54	
46	11	10	18	12	16	22	56	68	
47	3	7	11	6	6	9	24	30	
48	8	14	8	6	16	21	44	54	

49	11	9	9	6	16	9	44	30
50	11	16	17	8	10	14	36	44
51	10	8	8	6	13	21	38	54
52	5	12	8	12	6	16	36	56
53	6	16	13	4	12	15	32	38
54	12	10	14	11	12	13	46	48
55	5	17	20	10	11	15	42	50
56	10	15	8	13	7	16	40	58
57	13	8	16	6	9	17	30	46
58	7	11	18	7	13	22	40	58
59	6	15	18	9	17	20	52	58
60	4	16	18	6	14	7	40	26
61	6	9	18	12	13	13	50	50
62	7	12	12	10	12	19	44	58
63	8	15	19	11	10	16	42	54
64	13	7	10	12	14	14	52	52
65	13	11	12	3	8	9	22	24
66	9	13	19	6	17	13	46	38
67	13	17	22	5	16	9	42	28
68	7	13	12	4	16	21	40	50
69	10	8	14	12	9	9	42	42
70	12	14	7	11	9	11	40	44
71	3	6	21	11	13	14	48	50
72	9	11	11	4	6	15	20	38
73	8	5	18	13	13	8	52	42
74	9	7	16	10	17	18	54	56
75	4	17	18	13	16	16	58	58
76	5	15	9	3	5	8	16	22
77	8	16	13	7	12	8	38	30
78	10	11	10	12	10	17	44	58
79	7	10	8	10	10	13	40	46
80	12	10	12	7	14	21	42	56
81	10	10	17	7	16	18	46	50
82	9	13	8	7	14	13	42	40
83	5	13	16	11	15	20	52	62
84	13	5	20	5	16	19	42	48
85	11	14	10	9	9	18	36	54
86	5	9	16	5	13	19	36	48
87	6	14	22	6	11	17	34	46
88	6	14	10	13	17	9	60	44
89	11	11	14	9	6	8	30	34
90	7	6	13	6	9	13	30	38
91	10	10	21	4	8	12	24	32
92	7	8	15	7	16	13	46	40
93	12	6	9	5	12	15	34	40
94	7	12	10	13	9	7	44	40
95	13	11	7	12	14	21	52	66
96	7	7	19	8	7	10	30	36
97	3	6	10	12	15	15	54	54
98	8	14	20	9	16	21	50	60

99	13	6	9	8	17	10	50	36
100	3	10	16	12	6	8	36	40





54	136	80	170	18.78829	12.80625	19.72308	1360	21.2838
28	72	96	48	13.41641	14.42221	10	576	15.6205



<b>R</b>	X	Y	Z	oXY	oXZ	oYZ	sXY	
X		1	-0.02139	0.008204	0.612812	0.533446	-0.00639	0.68543
Y	-0.02139		1	0.10395	0.776943	0.076667	0.664853	0.674834
Z	0.008204	0.10395		1	0.087329	0.850182	0.812039	0.09277
oXY	0.612812	0.776943	0.087329		1	0.396518	0.521484	0.965021
oXZ	0.533446	0.076667	0.850182	0.396518		1	0.683511	0.439354
oYZ	-0.00639	0.664853	0.812039	0.521484	0.683511		1	0.465655
sXY	0.68543	0.674834	0.09277	0.965021	0.439354	0.465655		1
sXZ	0.709488	0.069972	0.670419	0.502082	0.940632	0.544572	0.564359	
xYZ	0.005191	0.725392	0.729466	0.576626	0.619761	0.973507	0.523814	
uXY	0.514931	0.837859	0.080486	0.986512	0.339195	0.552089	0.91649	
uXZ	0.361227	0.07926	0.929568	0.290118	0.976475	0.744654	0.320944	
uYZ	-0.01028	0.588626	0.857485	0.458785	0.719904	0.989404	0.406153	
vXYZ	0.514343	0.591023	0.582405	0.79104	0.76344	0.784213	0.828867	
uXYZ	0.288692	0.55358	0.823728	0.619348	0.848758	0.943486	0.584905	

<b>B</b>	F1	F2	F3	<b>F</b>	F1	F2	
X	0	0	0.991541	F1		1	0.030178
Y	0.993172	0.058968	0	F2	0.030178		1
Z	0.013764	0.999525	0.001286	F3		0	0.005199
oXY	0.77725	0.0493	0.619431				
oXZ	0.002186	0.84602	0.527332				
oYZ	0.593279	0.784957	0				
sXY	0.679309	0.057094	0.706499				
sXZ	0.007139	0.667241	0.723525				
xYZ	0.67287	0.69793	0.016006				
uXY	0.837403	0.043457	0.515801				
uXZ	0.001025	0.92676	0.347296				
uYZ	0.507532	0.834264	0				
vXYZ	0.552282	0.556077	0.54051				
uXYZ	0.488091	0.805925	0.264581				

<b>R.stř</b>	X	Y	Z	oXY	oXZ	oYZ	sXY	
X	0.983154	0.000304	0.006427	0.614446	0.527232	0.004046	0.700817	
Y	0.000304	0.993403	0.102593	0.777901	0.077581	0.660098	0.681174	
Z	0.006427	0.102593	1.000086	0.087456	0.84949	0.810977	0.091512	
oXY	0.614446	0.777901	0.087456		0.992874	0.39276	0.521647	0.97115
oXZ	0.527232	0.077581	0.84949	0.39276		0.998584	0.682737	0.442958
oYZ	0.004046	0.660098	0.810977	0.521647	0.682737		0.996245	0.467834
sXY	0.700817	0.681174	0.091512	0.97115	0.442958	0.467834		0.966621
sXZ	0.720845	0.066669	0.67221	0.504613	0.95129	0.543059	0.570471	
xYZ	0.019469	0.731552	0.727555	0.586935	0.619583	0.975545	0.526279	
uXY	0.511662	0.837199	0.083584	0.975055	0.334365	0.553646	0.938396	
uXZ	0.349135	0.083552	0.929008	0.286425	0.971356	0.746109	0.321481	
uYZ	0.004301	0.579169	0.856515	0.458619	0.722213	0.982928	0.413444	
vXYZ	0.538805	0.599116	0.583812	0.807279	0.774727	0.789398	0.803343	
uXYZ	0.266497	0.557387	0.829039	0.605284	0.838305	0.949262	0.584906	

<b>R.rezid</b>	X	Y	Z	oXY	oXZ	oYZ	sXY
X	0.016846	-0.02169	0.001777	-0.00163	0.006214	-0.01043	-0.01539
Y	-0.02169	0.006597	0.001357	-0.00096	-0.00091	0.004755	-0.00634
Z	0.001777	0.001357	-8.6E-05	-0.00013	0.000692	0.001062	0.001259
oXY	-0.00163	-0.00096	-0.00013	0.007126	0.003758	-0.00016	-0.00613
oXZ	0.006214	-0.00091	0.000692	0.003758	0.001416	0.000774	-0.0036
oYZ	-0.01043	0.004755	0.001062	-0.00016	0.000774	0.003755	-0.00218
sXY	-0.01539	-0.00634	0.001259	-0.00613	-0.0036	-0.00218	0.033379
sXZ	-0.01136	0.003303	-0.00179	-0.00253	-0.01066	0.001513	-0.00611
xYZ	-0.01428	-0.00616	0.001911	-0.01031	0.000178	-0.00204	-0.00246
uXY	0.003268	0.000661	-0.0031	0.011457	0.00483	-0.00156	-0.02191
uXZ	0.012091	-0.00429	0.00056	0.003693	0.005119	-0.00146	-0.00054
uYZ	-0.01458	0.009458	0.00097	0.000166	-0.00231	0.006475	-0.00729
vXYZ	-0.02446	-0.00809	-0.00141	-0.01624	-0.01129	-0.00519	0.025524
uXYZ	0.022195	-0.00381	-0.00531	0.014065	0.010453	-0.00578	-2.8E-07



sXZ	xYZ	uXY	uXZ	uYZ	vXYZ	uXYZ
0.709488	0.005191	0.514931	0.361227	-0.01028	0.514343	0.288692
0.069972	0.725392	0.837859	0.07926	0.588626	0.591023	0.55358
0.670419	0.729466	0.080486	0.929568	0.857485	0.582405	0.823728
0.502082	0.576626	0.986512	0.290118	0.458785	0.79104	0.619348
0.940632	0.619761	0.339195	0.976475	0.719904	0.76344	0.848758
0.544572	0.973507	0.552089	0.744654	0.989404	0.784213	0.943486
0.564359	0.523814	0.91649	0.320944	0.406153	0.828867	0.584905
1	0.497851	0.426878	0.851439	0.573862	0.804001	0.748247
0.497851	1	0.60844	0.674547	0.935152	0.818281	0.898933
0.426878	0.60844	1	0.250668	0.488337	0.749744	0.622616
0.851439	0.674547	0.250668	1	0.785733	0.702794	0.86724
0.573862	0.935152	0.488337	0.785733	1	0.748841	0.951494
0.804001	0.818281	0.749744	0.702794	0.748841	1	0.858283
0.748247	0.898933	0.622616	0.86724	0.951494	0.858283	1

F3	B x F	F1	F2	F3	B <sup>T</sup>	X
0	X	0	0.005155	0.991541	F1	0
0.005199	Y	0.994952	0.08894	0.000307	F2	0
1	Z	0.043928	0.999948	0.006482	F3	0.991541
	oXY	0.778738	0.075976	0.619687		
	oXZ	0.027717	0.848828	0.53173	SS	0.032941
	oYZ	0.616968	0.80286	0.004081		
	sXY	0.681032	0.081267	0.706796		
	sXZ	0.027275	0.671218	0.726994		
	xYZ	0.693932	0.718319	0.019635		
	uXY	0.838715	0.07141	0.516027		
	uXZ	0.028993	0.928597	0.352114		
	uYZ	0.532708	0.84958	0.004337		Náhodná kl
	vXYZ	0.569063	0.575554	0.543401		0.617019
	uXYZ	0.512412	0.82203	0.26877		0.024508

sXZ	xYZ	uXY	uXZ	uYZ	vXYZ	uXYZ
0.720845	0.019469	0.511662	0.349135	0.004301	0.538805	0.266497
0.066669	0.731552	0.837199	0.083552	0.579169	0.599116	0.557387
0.67221	0.727555	0.083584	0.929008	0.856515	0.583812	0.829039
0.504613	0.586935	0.975055	0.286425	0.458619	0.807279	0.605284
0.95129	0.619583	0.334365	0.971356	0.722213	0.774727	0.838305
0.543059	0.975545	0.553646	0.746109	0.982928	0.789398	0.949262
0.570471	0.526279	0.938396	0.321481	0.413444	0.803343	0.584906
0.974058	0.498452	0.426994	0.874568	0.573816	0.78126	0.746613
0.498452	0.968577	0.622445	0.67324	0.95146	0.7933	0.922809
0.426994	0.622445	0.971613	0.246254	0.485249	0.781834	0.603451
0.874568	0.67324	0.246254	0.982904	0.78941	0.722705	0.855693
0.573816	0.95146	0.485249	0.78941	0.979141	0.768982	0.945856
0.78126	0.7933	0.781834	0.722705	0.768982	0.92805	0.885382
0.746613	0.922809	0.603451	0.855693	0.945856	0.885382	0.983711

Náhodná kl  
0.617019  
0.024508  
0.52415

0.738083  
0.047498  
0.547496  
0.667082  
0.848531  
0.66961  
0.912055  
0.847322  
0.709547  
0.106777  
0.466543

sXZ	xYZ	uXY	uXZ	uYZ	vXYZ	uXYZ
-0.01136	-0.01428	0.003268	0.012091	-0.01458	-0.02446	0.022195
0.003303	-0.00616	0.000661	-0.00429	0.009458	-0.00809	-0.00381
-0.00179	0.001911	-0.0031	0.00056	0.00097	-0.00141	-0.00531
-0.00253	-0.01031	0.011457	0.003693	0.000166	-0.01624	0.014065
-0.01066	0.000178	0.00483	0.005119	-0.00231	-0.01129	0.010453
0.001513	-0.00204	-0.00156	-0.00146	0.006475	-0.00519	-0.00578
-0.00611	-0.00246	-0.02191	-0.00054	-0.00729	0.025524	-2.8E-07
0.025942	-0.0006	-0.00012	-0.02313	4.66E-05	0.02274	0.001635
-0.0006	0.031423	-0.014	0.001307	-0.01631	0.024981	-0.02388
-0.00012	-0.014	0.028387	0.004414	0.003088	-0.03209	0.019165
-0.02313	0.001307	0.004414	0.017096	-0.00368	-0.01991	0.011546
4.66E-05	-0.01631	0.003088	-0.00368	0.020859	-0.02014	0.005638
0.02274	0.024981	-0.03209	-0.01991	-0.02014	0.07195	-0.0271
0.001635	-0.02388	0.019165	0.011546	0.005638	-0.0271	0.016289



Y	Z	oXY	oXZ	oYZ	sXY	sXZ	xYZ	uXY
0.993172	0.013764	0.77725	0.002186	0.593279	0.679309	0.007139	0.67287	0.837403
0.058968	0.999525	0.0493	0.84602	0.784957	0.057094	0.667241	0.69793	0.043457
	0	0.001286	0.619431	0.527332	0	0.706499	0.723525	0.016006
								0.515801

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0.623317	0.463391
0.917213	0.464246
0.648667	0.11105
0.410645	0.715023
0.48427	0.889864
0.401365	0.396971
0.605954	0.750297
0.393721	0.670698
0.73208	0.696036
0.284937	0.45882
0.558716	0.577322
0.38836	0.176222
0.451166	0.0405
0.101259	0.601219







uXZ	uYZ	vXYZ	uXYZ
0.001025	0.507532	0.552282	0.488091
0.92676	0.834264	0.556077	0.805925
0.347296	0	0.54051	0.264581

i	gX	gY	gZ	X	Y	Z	oXY	oXZ	
1	9	22	29	3	21	26	48	58	
2	9	30	29	8	28	21	72	58	
3	8	19	21	10	24	27	68	74	
4	8	27	18	5	24	19	58	48	
5	6	27	16	11	28	18	78	58	
6	8	26	20	10	31	26	82	72	
7	12	29	24	8	25	25	66	66	
8	10	28	19	7	22	27	58	68	
9	6	18	26	9	24	24	66	66	
10	12	31	22	7	17	14	48	42	
11	4	12	15	11	33	29	88	80	
12	11	32	28	10	28	20	76	60	
13	5	13	15	8	18	22	52	60	
14	3	17	17	6	18	15	48	42	
15	11	24	24	7	21	15	56	44	
16	12	35	24	6	21	27	54	66	
17	3	16	14	10	29	29	78	78	
18	8	27	21	6	15	13	42	38	
19	4	19	19	12	33	23	90	70	
20	7	21	16	6	18	18	48	48	
21	12	31	30	11	29	23	80	68	
22	13	37	26	5	23	29	56	68	
23	12	35	32	12	35	21	94	66	
24	7	19	20	7	22	15	58	44	
25	7	28	19	4	19	24	46	56	
26	5	23	23	11	30	31	82	84	
27	12	31	30	12	35	25	94	74	
28	9	22	25	4	16	14	40	36	
29	5	23	29	12	31	20	86	64	
30	6	25	21	7	20	18	54	50	
31	7	17	19	11	30	27	82	76	
32	6	17	19	5	23	17	56	44	
33	11	27	24	6	17	15	46	42	
34	10	33	31	4	17	27	42	62	
35	5	18	15	5	20	19	50	48	
36	9	32	30	6	26	22	64	56	
37	4	12	19	12	33	28	90	80	
38	10	30	23	9	21	26	60	70	
39	8	21	19	5	20	18	50	46	
40	7	26	23	11	33	19	88	60	
41	4	14	26	10	31	22	82	64	
42	13	29	23	7	25	23	64	60	
43	6	22	20	7	21	15	56	44	
44	9	32	22	3	11	14	28	34	
45	4	17	15	5	24	24	58	58	
46	11	27	24	11	31	21	84	64	
47	8	29	26	8	28	25	72	66	
48	6	15	20	8	19	15	54	46	

49	8	27	21	9	28	22	74	62
50	4	23	22	3	10	21	26	48
51	4	12	12	8	27	21	70	58
52	9	23	26	6	16	23	44	58
53	8	28	30	4	23	18	54	44
54	8	23	26	4	21	26	50	60
55	8	29	31	10	22	17	64	54
56	6	22	29	6	27	30	66	72
57	4	20	25	12	27	21	78	66
58	7	24	15	13	37	22	100	70
59	11	33	27	4	20	19	48	46
60	8	26	23	7	20	27	54	68
61	5	24	25	3	15	25	36	56
62	11	32	28	3	15	26	36	58
63	11	24	26	5	16	20	42	50
64	12	36	30	11	35	26	92	74
65	4	17	28	5	13	12	36	34
66	4	17	23	4	22	19	52	46
67	10	29	24	5	18	13	46	36
68	8	23	18	3	13	24	32	54
69	11	24	21	11	27	18	76	58
70	3	20	24	9	22	25	62	68
71	10	24	16	3	14	20	34	46
72	9	26	18	11	29	21	80	64
73	7	20	22	3	20	28	46	62
74	3	14	15	8	21	15	58	46
75	5	14	15	5	16	13	42	36
76	6	24	23	12	34	25	92	74
77	7	24	22	10	24	15	68	50
78	5	14	25	5	21	26	52	62
79	6	26	26	4	16	12	40	32
80	8	24	21	11	30	25	82	72
81	10	24	24	11	29	30	80	82
82	4	13	26	10	31	21	82	62
83	7	18	24	4	16	18	40	44
84	10	23	18	7	23	16	60	46
85	8	24	19	7	25	20	64	54
86	6	27	31	7	21	23	56	60
87	11	35	21	11	34	32	90	86
88	6	21	29	9	27	25	72	68
89	7	20	27	13	33	28	92	82
90	13	28	19	12	32	19	88	62
91	10	27	17	9	23	22	64	62
92	11	29	29	9	26	21	70	60
93	6	23	29	6	26	27	64	66
94	7	26	30	13	38	24	102	74
95	8	27	20	11	30	26	82	74
96	7	27	19	10	29	30	78	80
97	5	13	12	10	32	28	84	76
98	12	26	21	4	24	18	56	44

99	8	18	24	6	19	23	50	58
100	6	27	19	3	16	25	38	56

oYZ	sXY	sXZ	xYZ	uXY	uXZ	uYZ	vXYZ	uXYZ
94	63	78	546	21.2132	26.1725	33.42155	1638	33.55592
98	224	168	588	29.12044	22.47221	35	4704	35.90265
102	240	270	648	26	28.79236	36.12478	6480	37.48333
86	120	95	456	24.5153	19.64688	30.61046	2280	31.01612
92	308	198	504	30.08322	21.09502	33.28663	5544	35.0571
114	310	260	806	32.57299	27.85678	40.45986	8060	41.67733
100	200	200	625	26.24881	26.24881	35.35534	5000	36.24914
98	154	189	594	23.08679	27.89265	34.82815	4158	35.52464
96	216	216	576	25.63201	25.63201	33.94113	5184	35.1141
62	119	98	238	18.38478	15.65248	22.02272	1666	23.10844
124	363	319	957	34.78505	31.01612	43.93177	10527	45.28797
96	280	200	560	29.73214	22.36068	34.4093	5600	35.83295
80	144	176	396	19.69772	23.4094	28.42534	3168	29.52965
66	108	90	270	18.97367	16.15549	23.43075	1620	24.18677
72	147	105	315	22.13594	16.55295	25.80698	2205	26.73948
96	126	162	567	21.84033	27.65863	34.20526	3402	34.72751
116	290	290	841	30.67572	30.67572	41.01219	8410	42.21374
56	90	78	195	16.15549	14.31782	19.84943	1170	20.73644
112	396	276	759	35.1141	25.94224	40.22437	9108	41.97618
72	108	108	324	18.97367	18.97367	25.45584	1944	26.15339
104	319	253	667	31.01612	25.4951	37.01351	7337	38.61347
104	115	145	667	23.5372	29.42788	37.01351	3335	37.3497
112	420	252	735	37	24.18677	40.81666	8820	42.54409
74	154	105	330	23.08679	16.55295	26.62705	2310	27.5318
86	76	96	456	19.41649	24.33105	30.61046	1824	30.8707
122	330	341	930	31.95309	32.89377	43.13931	10230	44.51966
120	420	300	875	37	27.73085	43.01163	10500	44.65423
60	64	56	224	16.49242	14.56022	21.26029	896	21.63331
102	372	240	620	33.24154	23.32381	36.89173	7440	38.79433
76	140	126	360	21.18962	19.31321	26.90725	2520	27.80288
114	330	297	810	31.95309	29.15476	40.36087	8910	41.833
80	115	85	391	23.5372	17.72005	28.6007	1955	29.03446
64	102	90	255	18.02776	16.15549	22.67157	1530	23.45208
88	68	108	459	17.46425	27.29469	31.90611	1836	32.15587
78	100	95	380	20.61553	19.64688	27.58623	1900	28.03569
96	156	132	572	26.68333	22.80351	34.05877	3432	34.58323
122	396	336	924	35.1141	30.46309	43.27817	11088	44.91102
94	189	234	546	22.84732	27.51363	33.42155	4914	34.61214
76	100	90	360	20.61553	18.68154	26.90725	1800	27.36786
104	363	209	627	34.78505	21.9545	38.07887	6897	39.63584
106	310	220	682	32.57299	24.16609	38.01316	6820	39.30649
96	175	161	575	25.96151	24.04163	33.97058	4025	34.68429
72	147	105	315	22.13594	16.55295	25.80698	2205	26.73948
50	33	42	154	11.40175	14.31782	17.80449	462	18.05547
96	120	120	576	24.5153	24.5153	33.94113	2880	34.30743
104	341	231	651	32.89377	23.70654	37.44329	7161	39.02563
106	224	200	700	29.12044	26.24881	37.53665	5600	38.37968
68	152	120	285	20.61553	17	24.20744	2280	25.4951



84	114	138	437	19.92486	23.76973	29.83287	2622	30.43025
82	48	75	400	16.27882	25.17936	29.68164	1200	29.83287



<b>R</b>	X	Y	Z	oXY	oXZ	oYZ	sXY	
X		1	0.856378	0.271271	0.931844	0.676511	0.708293	0.965024
Y	0.856378		1	0.437523	0.985373	0.736362	0.888662	0.93848
Z	0.271271	0.437523		1	0.396993	0.892336	0.801153	0.352859
oXY	0.931844	0.985373	0.396993		1	0.740742	0.858258	0.977997
oXZ	0.676511	0.736362	0.892336	0.740742		1	0.945138	0.722533
oYZ	0.708293	0.888662	0.801153	0.858258	0.945138		1	0.804542
sXY	0.965024	0.93848	0.352859	0.977997	0.722533	0.804542		1
sXZ	0.906871	0.859398	0.624327	0.903231	0.902969	0.890349	0.917227	
xYZ	0.711038	0.880171	0.794544	0.853197	0.941369	0.990978	0.807441	
uXY	0.888173	0.997841	0.424064	0.994349	0.740975	0.880362	0.956598	
uXZ	0.444545	0.572442	0.98199	0.548992	0.959814	0.881763	0.516351	
uYZ	0.712818	0.892569	0.793625	0.862497	0.9415	0.998761	0.813101	
vXYZ	0.902227	0.917508	0.566577	0.942534	0.856605	0.899573	0.956571	
uXYZ	0.755466	0.910221	0.765517	0.888977	0.939994	0.996176	0.846217	

<b>B</b>	F1	F2	F3	<b>F</b>	F1	F2	
X	0.104223	0.219281	0.871185	F1		1	0.260434
Y	0.917628	0.198525	0	F2	0.260434		1
Z	0.004611	0.998873	0.001786	F3	0.842958	0.011912	
oXY	0.957922	0.14364	0.005632				
oXZ	0.002555	0.87904	0.460576				
oYZ	0.614212	0.641056	0				
sXY	0.468254	0.215956	0.513086				
sXZ	0.005915	0.601721	0.780674				
xYZ	0.59239	0.640016	0.02624				
uXY	0.93782	0.178468	8.66E-06				
uXZ	0.001107	0.975873	0.194079				
uYZ	0.622703	0.631277	0				
vXYZ	0.308602	0.472403	0.542466				
uXYZ	0.647176	0.595569	0.020887				

<b>R.stř</b>	X	Y	Z	oXY	oXZ	oYZ	sXY
X	0.987442	0.872903	0.26236	0.900316	0.670941	0.714776	0.968284
Y	0.872903	0.97634	0.442869	0.995755	0.744416	0.87584	0.94647
Z	0.26236	0.442869	1.000228	0.398807	0.887897	0.804656	0.349668
oXY	0.900316	0.995755	0.398807	1.019062	0.72347	0.866312	0.971278
oXZ	0.670941	0.744416	0.887897	0.72347	0.997646	0.948104	0.724147
oYZ	0.714776	0.87584	0.804656	0.866312	0.948104	0.993298	0.808339
sXY	0.968284	0.94647	0.349668	0.971278	0.724147	0.808339	0.989515
sXZ	0.910558	0.874704	0.617071	0.878618	0.905719	0.896768	0.923369
xYZ	0.720197	0.874592	0.798267	0.865461	0.946077	0.989205	0.810986
uXY	0.885848	0.987145	0.428187	1.008071	0.739181	0.875553	0.958903
uXZ	0.438233	0.578606	0.979671	0.542945	0.956358	0.884523	0.513461
uYZ	0.71987	0.879792	0.797137	0.870958	0.94471	0.992097	0.8131
vXYZ	0.919393	0.926708	0.564148	0.936384	0.866113	0.904479	0.951697
uXYZ	0.752707	0.904098	0.768309	0.898413	0.938152	0.993586	0.843252

<b>R.rezid</b>	X	Y	Z	oXY	oXZ	oYZ	sXY
X	0.012558	-0.01653	0.008911	0.031528	0.00557	-0.00648	-0.00326
Y	-0.01653	0.02366	-0.00535	-0.01038	-0.00805	0.012822	-0.00799
Z	0.008911	-0.00535	-0.00023	-0.00181	0.00444	-0.0035	0.00319
oXY	0.031528	-0.01038	-0.00181	-0.01906	0.017272	-0.00805	0.006719
oXZ	0.00557	-0.00805	0.00444	0.017272	0.002354	-0.00297	-0.00161
oYZ	-0.00648	0.012822	-0.0035	-0.00805	-0.00297	0.006702	-0.0038
sXY	-0.00326	-0.00799	0.00319	0.006719	-0.00161	-0.0038	0.010485
sXZ	-0.00369	-0.01531	0.007256	0.024613	-0.00275	-0.00642	-0.00614
xYZ	-0.00916	0.005579	-0.00372	-0.01226	-0.00471	0.001773	-0.00354
uXY	0.002325	0.010696	-0.00412	-0.01372	0.001794	0.004809	-0.0023
uXZ	0.006311	-0.00616	0.002319	0.006047	0.003456	-0.00276	0.00289
uYZ	-0.00705	0.012777	-0.00351	-0.00846	-0.00321	0.006663	1.12E-06
vXYZ	-0.01717	-0.0092	0.002429	0.00615	-0.00951	-0.00491	0.004874
uXYZ	0.002759	0.006123	-0.00279	-0.00944	0.001842	0.002589	0.002966



sXZ	xYZ	uXY	uXZ	uYZ	vXYZ	uXYZ
0.906871	0.711038	0.888173	0.444545	0.712818	0.902227	0.755466
0.859398	0.880171	0.997841	0.572442	0.892569	0.917508	0.910221
0.624327	0.794544	0.424064	0.98199	0.793625	0.566577	0.765517
0.903231	0.853197	0.994349	0.548992	0.862497	0.942534	0.888977
0.902969	0.941369	0.740975	0.959814	0.9415	0.856605	0.939994
0.890349	0.990978	0.880362	0.881763	0.998761	0.899573	0.996176
0.917227	0.807441	0.956598	0.516351	0.813101	0.956571	0.846217
1	0.90685	0.878969	0.751037	0.887268	0.976967	0.909145
0.90685	1	0.872866	0.873616	0.986509	0.920105	0.984444
0.878969	0.872866	1	0.566079	0.884402	0.929843	0.905532
0.751037	0.873616	0.566079	1	0.877024	0.698853	0.859295
0.887268	0.986509	0.884402	0.877024	1	0.900901	0.997974
0.976967	0.920105	0.929843	0.698853	0.900901	1	0.921738
0.909145	0.984444	0.905532	0.859295	0.997974	0.921738	1

F3	B x F	F1	F2	F3	B <sup>T</sup>	X
0.842958	X	0.895703	0.256801	0.961653	F1	0.104223
0.011912	Y	0.96933	0.437506	0.775886	F2	0.219281
1	Z	0.266258	1.000095	0.017571	F3	0.871185
	oXY	1.000078	0.393183	0.81483		
	oXZ	0.619733	0.885191	0.4732	SS	0.013837
	oYZ	0.781165	0.801018	0.525391		
	sXY	0.957006	0.344017	0.910376		
	sXZ	0.820698	0.61256	0.792827		
	xYZ	0.781192	0.794607	0.533224		
	uXY	0.984307	0.422709	0.792677		
	uXZ	0.418858	0.978473	0.206636		
	uYZ	0.787109	0.79345	0.532431		Náhodná kl
	vXYZ	0.888908	0.559235	0.808231		0.761197
	uXYZ	0.819889	0.764365	0.573523		0.155891

sXZ	xYZ	uXY	uXZ	uYZ	vXYZ	uXYZ	
0.910558	0.720197	0.885848	0.438233	0.71987	0.919393	0.752707	0.917389
0.874704	0.874592	0.987145	0.578606	0.879792	0.926708	0.904098	0.295025
0.617071	0.798267	0.428187	0.979671	0.797137	0.564148	0.768309	0.927985
0.878618	0.865461	1.008071	0.542945	0.870958	0.936384	0.898413	0.526488
0.905719	0.946077	0.739181	0.956358	0.94471	0.866113	0.938152	0.635105
0.896768	0.989205	0.875553	0.884523	0.992097	0.904479	0.993586	0.830998
0.923369	0.810986	0.958903	0.513461	0.8131	0.951697	0.843252	0.964176
0.992384	0.899026	0.878997	0.752561	0.897746	0.972726	0.912518	0.788644
0.899026	0.985324	0.874434	0.879788	0.988067	0.905708	0.989949	0.979934
0.878997	0.874434	0.99855	0.567441	0.879777	0.933448	0.905328	0.0788
0.752561	0.879788	0.567441	0.995432	0.878511	0.703587	0.858139	0.963136
0.897746	0.988067	0.879777	0.878511	0.991021	0.906557	0.993073	
0.972726	0.905708	0.933448	0.703587	0.906557	0.976941	0.925224	
0.912518	0.989949	0.905328	0.858139	0.993073	0.925224	0.997824	

sXZ	xYZ	uXY	uXZ	uYZ	vXYZ	uXYZ
-0.00369	-0.00916	0.002325	0.006311	-0.00705	-0.01717	0.002759
-0.01531	0.005579	0.010696	-0.00616	0.012777	-0.0092	0.006123
0.007256	-0.00372	-0.00412	0.002319	-0.00351	0.002429	-0.00279
0.024613	-0.01226	-0.01372	0.006047	-0.00846	0.00615	-0.00944
-0.00275	-0.00471	0.001794	0.003456	-0.00321	-0.00951	0.001842
-0.00642	0.001773	0.004809	-0.00276	0.006663	-0.00491	0.002589
-0.00614	-0.00354	-0.0023	0.00289	1.12E-06	0.004874	0.002966
0.007616	0.007823	-2.8E-05	-0.00152	-0.01048	0.004241	-0.00337
0.007823	0.014676	-0.00157	-0.00617	-0.00156	0.014397	-0.00551
-2.8E-05	-0.00157	0.00145	-0.00136	0.004625	-0.00361	0.000204
-0.00152	-0.00617	-0.00136	0.004568	-0.00149	-0.00473	0.001156
-0.01048	-0.00156	0.004625	-0.00149	0.008979	-0.00566	0.004901
0.004241	0.014397	-0.00361	-0.00473	-0.00566	0.023059	-0.00349
-0.00337	-0.00551	0.000204	0.001156	0.004901	-0.00349	0.002176



Y	Z	oXY	oXZ	oYZ	sXY	sXZ	xYZ	uXY	
0.917628	0.004611	0.957922	0.002555	0.614212	0.468254	0.005915	0.59239	0.93782	
0.198525	0.998873	0.14364	0.87904	0.641056	0.215956	0.601721	0.640016	0.178468	
	0	0.001786	0.005632	0.460576	0	0.513086	0.780674	0.02624	8.66E-06

ladná čísla

0.539945	0.585896
0.16541	0.769204
0.881629	0.8399
0.765439	0.783274
0.685732	0.868424
0.920362	0.620206
0.425073	0.167962
0.879068	0.636845
0.034965	0.567731
0.191502	0.601817
0.904279	0.462674
0.908713	0.396533
0.444729	0.091511
0.853795	0.746467







uXZ	uYZ	vXYZ	uXYZ
0.001107	0.622703	0.308602	0.647176
0.975873	0.631277	0.472403	0.595569
0.194079	0	0.542466	0.020887

Výsledek při nekorelování

<b>B</b>	F1	F2
X	0	0
Y	0.993172	0.058968
Z	0.013764	0.999525
oXY	0.77725	0.0493
oXZ	0.002186	0.84602
oYZ	0.593279	0.784957
sXY	0.679309	0.057094
sXZ	0.007139	0.667241
xYZ	0.67287	0.69793
uXY	0.837403	0.043457
uXZ	0.001025	0.92676
uYZ	0.507532	0.834264
vXYZ	0.552282	0.556077
uXYZ	0.488091	0.805925

<b>F</b>	F1	F2
F1	1	0.030178
F2	0.030178	1
F3	0	0.005199





F3

0.991541
0
0.001286
0.619431
0.527332
0
0.706499
0.723525
0.016006
0.515801
0.347296
0
0.54051
0.264581

F3

0
0.005199
1