```
 NEW FILE.
DATASET NAME DataSet2 WINDOW=FRONT.
DATASET ACTIVATE DataSet2.
DATASET CLOSE DataSet1.
NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 11:17:29
Comments		
Input	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	53
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	19	.12579	.082752	.010	.260
LCh_lab	19	.20421	.064405	.140	.370
CMYK_lab	19	.09263	.061178	.030	.210
RGB_lab	19	.12368	.079247	.010	.280
Lab_lab	19	.12316	.080695	.010	.260
HSV_online	53	.06642	.094097	.000	.380
LCh_online	53	.20698	.066668	.050	.370
CMYK_online	53	.06038	.060159	.020	.220
RGB_online	53	.06660	.088621	.010	.330
Lab_online	53	.06698	.080422	.010	.290

Wilcoxon Signed Ranks Test - Question 1

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	12[a]	11,54	138,50
	Positive Ranks	7[b]	7,36	51,50
	Ties	0[c]		
	Total	19		
LCh_online - LCh_lab	Negative Ranks	6[d]	9,17	55,00
	Positive Ranks	12[e]	9,67	116,00
	Ties	1[f]		
	Total	19		
CMYK_online - CMYK_lab	Negative Ranks	12[g]	8,67	104,00
	Positive Ranks	5[h]	9,80	49,00
	Ties	2[i]		
	Total	19		
RGB_online - RGB_lab	Negative Ranks	12[j]	8,54	102,50
	Positive Ranks	4[k]	8,38	33,50
	Ties	3[l]		
	Total	19		
Lab_online - Lab_lab	Negative Ranks	11[m]	10,27	113,00
	Positive Ranks	6[n]	6,67	40,00
	Ties	2[o]		
	Total	19		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-1,751[b]	-1,330[c]	-1,303[b]	-1,785[b]	-1,729[b]
Asymp. Sig. (2-tailed)	,080	,184	,193	,074	,084

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

```
 NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		**04-OCT-2016 11:21:01**
Comments		
Input	**Active Dataset**	**DataSet2**
	Filter	**<none>**
	Weight	**<none>**
	Split File	**<none>**
	N of Rows in Working Data File	**63**
Missing Value Handling	**Definition of Missing**	**User-defined missing values are treated as missing.**
	Cases Used	**Statistics for each test are based on all cases with valid data for the variable(s) used in that test.**
Syntax		**NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…**
Resources	**Processor Time**	**00:00:00,01**
	Elapsed Time	**00:00:00,00**
	Number of Cases Allowed[a]	**52428**

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	15	.21733	.130135	.010	.430
LCh_lab	15	.15733	.094451	.030	.400
CMYK_lab	15	.10600	.056417	.020	.210
RGB_lab	15	.16600	.105207	.010	.330
Lab_lab	15	.15600	.083990	.020	.310
HSV_online	63	.14667	.131333	.000	.430
LCh_online	63	.15857	.083432	.020	.300
CMYK_online	63	.07762	.039583	.020	.190
RGB_online	63	.09667	.079291	.000	.310
Lab_online	63	.12254	.052853	.010	.230

Wilcoxon Signed Ranks Test - Question 2

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	10[a]	8,65	86,50
	Positive Ranks	5[b]	6,70	33,50
	Ties	0[c]		
	Total	15		
LCh_online - LCh_lab	Negative Ranks	8[d]	7,81	62,50
	Positive Ranks	7[e]	8,21	57,50
	Ties	0[f]		
	Total	15		
CMYK_online - CMYK_lab	Negative Ranks	10[g]	7,70	77,00
	Positive Ranks	4[h]	7,00	28,00
	Ties	1[i]		
	Total	15		
RGB_online - RGB_lab	Negative Ranks	10[j]	8,50	85,00
	Positive Ranks	5[k]	7,00	35,00
	Ties	0[l]		
	Total	15		
Lab_online - Lab_lab	Negative Ranks	10[m]	6,75	67,50
	Positive Ranks	4[n]	9,38	37,50
	Ties	1[o]		
	Total	15		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-1,505[b]	-,142[b]	-1,541[b]	-1,422[b]	-,944[b]
Asymp. Sig. (2-tailed)	,132	,887	,123	,155	,345

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 11:28:41
Comments		
Input	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	22	.09409	.123082	.020	.430
LCh_lab	22	.23000	.058554	.160	.380
CMYK_lab	22	.06091	.033793	.020	.140
RGB_lab	22	.11136	.060340	.040	.230
Lab_lab	22	.12273	.039180	.080	.230
HSV_online	71	.06915	.093637	.000	.370
LCh_online	71	.22662	.059712	.150	.390
CMYK_online	71	.06746	.034917	.020	.140
RGB_online	71	.12056	.059447	.030	.230
Lab_online	71	.12549	.041638	.080	.230

Wilcoxon Signed Ranks Test - Question 3

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	14[a]	10,21	143,00
	Positive Ranks	5[b]	9,40	47,00
	Ties	3[c]		
	Total	22		
LCh_online - LCh_lab	Negative Ranks	8[d]	9,00	72,00
	Positive Ranks	10[e]	9,90	99,00
	Ties	4[f]		
	Total	22		
CMYK_online - CMYK_lab	Negative Ranks	8[g]	10,38	83,00
	Positive Ranks	13[h]	11,38	148,00
	Ties	1[i]		
	Total	22		
RGB_online - RGB_lab	Negative Ranks	9[j]	10,39	93,50
	Positive Ranks	13[k]	12,27	159,50
	Ties	0[l]		
	Total	22		
Lab_online - Lab_lab	Negative Ranks	8[m]	11,94	95,50
	Positive Ranks	13[n]	10,42	135,50
	Ties	1[o]		
	Total	22		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-1,945[b]	-,589[c]	-1,133[c]	-1,072[c]	-,699[c]
Asymp. Sig. (2-tailed)	,052	,556	,257	,284	,485

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

```
 NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 11:31:43
Comments		
Input	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	78
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	21	.11619	.129749	.010	.460
LCh_lab	21	.20476	.056535	.140	.360
CMYK_lab	21	.09952	.041289	.030	.190
RGB_lab	21	.19000	.063797	.060	.320
Lab_lab	21	.20048	.085234	.050	.390
HSV_online	78	.11436	.148635	.000	.510
LCh_online	78	.22346	.075280	.110	.390
CMYK_online	78	.10667	.043980	.010	.210
RGB_online	78	.20679	.081216	.020	.330
Lab_online	78	.22936	.099822	.020	.410

Wilcoxon Signed Ranks Test - Question 4

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	11[a]	10,09	111,00
	Positive Ranks	9[b]	11,00	99,00
	Ties	1[c]		
	Total	21		
LCh_online - LCh_lab	Negative Ranks	8[d]	10,25	82,00
	Positive Ranks	11[e]	9,82	108,00
	Ties	2[f]		
	Total	21		
CMYK_online - CMYK_lab	Negative Ranks	10[g]	10,55	105,50
	Positive Ranks	9[h]	9,39	84,50
	Ties	2[i]		
	Total	21		
RGB_online - RGB_lab	Negative Ranks	10[j]	10,05	100,50
	Positive Ranks	9[k]	9,94	89,50
	Ties	2[l]		
	Total	21		
Lab_online - Lab_lab	Negative Ranks	9[m]	9,83	88,50
	Positive Ranks	10[n]	10,15	101,50
	Ties	2[o]		
	Total	21		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-,224[b]	-,524[c]	-,423[b]	-,221[b]	-,262[c]
Asymp. Sig. (2-tailed)	,823	,600	,672	,825	,794

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

```
NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		**04-OCT-2016 11:38:46**
Comments		
Input	**Active Dataset**	**DataSet2**
	Filter	**<none>**
	Weight	**<none>**
	Split File	**<none>**
	N of Rows in Working Data File	**67**
Missing Value Handling	**Definition of Missing**	**User-defined missing values are treated as missing.**
	Cases Used	**Statistics for each test are based on all cases with valid data for the variable(s) used in that test.**
Syntax		**NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…**
Resources	**Processor Time**	**00:00:00,01**
	Elapsed Time	**00:00:00,00**
	Number of Cases Allowed[a]	**52428**

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	18	.16833	.101126	.030	.400
LCh_lab	18	.15000	.080000	.030	.340
CMYK_lab	18	.13222	.067871	.010	.260
RGB_lab	18	.13889	.091065	.020	.320
Lab_lab	18	.13500	.075790	.030	.290
HSV_online	67	.16269	.130472	.010	.400
LCh_online	67	.14940	.066740	.030	.340
CMYK_online	67	.12627	.064169	.030	.320
RGB_online	67	.13552	.095716	.000	.350
Lab_online	67	.10567	.074898	.000	.320

Wilcoxon Signed Ranks Test - Question 5

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	11[a]	7,73	85,00
	Positive Ranks	6[b]	11,33	68,00
	Ties	1[c]		
	Total	18		
LCh_online - LCh_lab	Negative Ranks	9[d]	10,33	93,00
	Positive Ranks	8[e]	7,50	60,00
	Ties	1[f]		
	Total	18		
CMYK_online - CMYK_lab	Negative Ranks	11[g]	8,86	97,50
	Positive Ranks	7[h]	10,50	73,50
	Ties	0[i]		
	Total	18		
RGB_online - RGB_lab	Negative Ranks	12[j]	8,38	100,50
	Positive Ranks	6[k]	11,75	70,50
	Ties	0[l]		
	Total	18		
Lab_online - Lab_lab	Negative Ranks	12[m]	9,67	116,00
	Positive Ranks	6[n]	9,17	55,00
	Ties	0[o]		
	Total	18		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-,403[b]	-,784[b]	-,523[b]	-,653[b]	-1,330[b]
Asymp. Sig. (2-tailed)	,687	,433	,601	,513	,184

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
 NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 11:40:52
Comments		
Input	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	73
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.

Syntax		NPAR TESTS
		  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED)
		  /STATISTICS DESCRIPTIVES…

Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	22	.07409	.104182	.000	.320
LCh_lab	22	.13318	.086706	.040	.370
CMYK_lab	22	.05773	.061639	.020	.270
RGB_lab	22	.07773	.092733	.010	.320
Lab_lab	22	.05091	.073738	.010	.290
HSV_online	73	.03014	.048890	.000	.310
LCh_online	73	.13644	.070344	.070	.340
CMYK_online	73	.03315	.025049	.010	.150
RGB_online	73	.03986	.046233	.010	.260
Lab_online	73	.02356	.033927	.010	.180

Wilcoxon Signed Ranks Test - Question 6

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	10[a]	11,55	115,50
	Positive Ranks	9[b]	8,28	74,50
	Ties	3[c]		
	Total	22		
LCh_online - LCh_lab	Negative Ranks	11[d]	10,36	114,00
	Positive Ranks	10[e]	11,70	117,00
	Ties	1[f]		
	Total	22		
CMYK_online - CMYK_lab	Negative Ranks	7[g]	7,50	52,50
	Positive Ranks	6[h]	6,42	38,50
	Ties	9[i]		
	Total	22		
RGB_online - RGB_lab	Negative Ranks	9[j]	12,72	114,50
	Positive Ranks	11[k]	8,68	95,50
	Ties	2[l]		
	Total	22		
Lab_online - Lab_lab	Negative Ranks	7[m]	8,07	56,50
	Positive Ranks	7[n]	6,93	48,50
	Ties	8[o]		
	Total	22		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-,826[b]	-,052[c]	-,491[b]	-,356[b]	-,251[b]
Asymp. Sig. (2-tailed)	,409	,958	,623	,721	,802

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

```
NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 11:42:28
Comments		
Input	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	76
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	22	.15773	.206788	.010	.540
LCh_lab	22	.23227	.100377	.030	.340
CMYK_lab	22	.09864	.075233	.030	.250
RGB_lab	22	.14545	.128349	.000	.380
Lab_lab	22	.17045	.079251	.020	.290
HSV_online	76	.12816	.209862	.000	.540
LCh_online	76	.18447	.084339	.030	.330
CMYK_online	76	.11474	.059250	.020	.240
RGB_online	76	.16724	.107326	.000	.380
Lab_online	76	.21526	.073493	.020	.290

Wilcoxon Signed Ranks Test - Question 7

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	12[a]	10,29	123,50
	Positive Ranks	7[b]	9,50	66,50
	Ties	3[c]		
	Total	22		
LCh_online - LCh_lab	Negative Ranks	14[d]	12,07	169,00
	Positive Ranks	8[e]	10,50	84,00
	Ties	0[f]		
	Total	22		
CMYK_online - CMYK_lab	Negative Ranks	8[g]	12,00	96,00
	Positive Ranks	12[h]	9,50	114,00
	Ties	2[i]		
	Total	22		
RGB_online - RGB_lab	Negative Ranks	8[j]	12,75	102,00
	Positive Ranks	13[k]	9,92	129,00
	Ties	1[l]		
	Total	22		
Lab_online - Lab_lab	Negative Ranks	9[m]	10,11	91,00
	Positive Ranks	13[n]	12,46	162,00
	Ties	0[o]		
	Total	22		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-1,148[b]	-1,381[b]	-,336[c]	-,470[c]	-1,154[c]
Asymp. Sig. (2-tailed)	,251	,167	,737	,638	,249

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

```
 NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 11:51:59
Comments		
Input	Active Dataset	DataSet2
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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	13	.09538	.163024	.000	.490
LCh_lab	13	.17000	.128452	.000	.390
CMYK_lab	13	.10077	.049743	.030	.210
RGB_lab	13	.12923	.089672	.020	.360
Lab_lab	13	.12923	.089857	.010	.320
HSV_online	62	.10097	.169364	.000	.560
LCh_online	62	.09081	.119840	.000	.390
CMYK_online	62	.11839	.048728	.010	.250
RGB_online	62	.14339	.070431	.020	.400
Lab_online	62	.16387	.067832	.010	.350

Wilcoxon Signed Ranks Test - Question 8

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	5[a]	6,00	30,00
	Positive Ranks	5[b]	5,00	25,00
	Ties	3[c]		
	Total	13		
LCh_online - LCh_lab	Negative Ranks	9[d]	7,33	66,00
	Positive Ranks	4[e]	6,25	25,00
	Ties	0[f]		
	Total	13		
CMYK_online - CMYK_lab	Negative Ranks	5[g]	5,10	25,50
	Positive Ranks	7[h]	7,50	52,50
	Ties	1[i]		
	Total	13		
RGB_online - RGB_lab	Negative Ranks	4[j]	6,38	25,50
	Positive Ranks	7[k]	5,79	40,50
	Ties	2[l]		
	Total	13		
Lab_online - Lab_lab	Negative Ranks	6[m]	6,08	36,50
	Positive Ranks	7[n]	7,79	54,50
	Ties	0[o]		
	Total	13		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-,255[b]	-1,433[b]	-1,068[c]	-,668[c]	-,630[c]
Asymp. Sig. (2-tailed)	,799	,152	,286	,504	,529

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

```
NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 11:53:55
Comments		
Input	Active Dataset	DataSet2
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	Split File	<none>
	N of Rows in Working Data File	77
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	19	.12579	.098900	.020	.340
LCh_lab	19	.16421	.074634	.050	.290
CMYK_lab	19	.09105	.046415	.030	.240
RGB_lab	19	.10053	.075238	.000	.230
Lab_lab	19	.11421	.066942	.030	.220
HSV_online	77	.10831	.081150	.020	.440
LCh_online	77	.12740	.057615	.050	.290
CMYK_online	77	.10104	.039623	.040	.260
RGB_online	77	.09948	.076018	.000	.350
Lab_online	77	.11091	.063374	.020	.290

Wilcoxon Signed Ranks Test - Question 9

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	8[a]	9,81	78,50
	Positive Ranks	9[b]	8,28	74,50
	Ties	2[c]		
	Total	19		
LCh_online - LCh_lab	Negative Ranks	14[d]	9,79	137,00
	Positive Ranks	5[e]	10,60	53,00
	Ties	0[f]		
	Total	19		
CMYK_online - CMYK_lab	Negative Ranks	8[g]	9,50	76,00
	Positive Ranks	10[h]	9,50	95,00
	Ties	1[i]		
	Total	19		
RGB_online - RGB_lab	Negative Ranks	10[j]	10,65	106,50
	Positive Ranks	9[k]	9,28	83,50
	Ties	0[l]		
	Total	19		
Lab_online - Lab_lab	Negative Ranks	10[m]	10,30	103,00
	Positive Ranks	9[n]	9,67	87,00
	Ties	0[o]		
	Total	19		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-,095[b]	-1,692[b]	-,415[c]	-,463[b]	-,322[b]
Asymp. Sig. (2-tailed)	,924	,091	,678	,643	,747

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

```
 NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 11:55:40
Comments		
Input	Active Dataset	DataSet2
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	52
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.

Syntax		NPAR TESTS
		  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED)
		  /STATISTICS DESCRIPTIVES…

Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	14	.30000	.157919	.020	.430
LCh_lab	14	.25571	.116402	.050	.400
CMYK_lab	14	.13143	.047694	.060	.210
RGB_lab	14	.21071	.064027	.120	.340
Lab_lab	14	.20429	.095813	.070	.380
HSV_online	52	.16923	.167997	.010	.430
LCh_online	52	.26846	.088924	.060	.390
CMYK_online	52	.13327	.037086	.040	.190
RGB_online	52	.20462	.043407	.050	.290
Lab_online	52	.21846	.066962	.070	.330

Wilcoxon Signed Ranks Test - Question 1 0

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	11[a]	7,00	77,00
	Positive Ranks	2[b]	7,00	14,00
	Ties	1[c]		
	Total	14		
LCh_online - LCh_lab	Negative Ranks	7[d]	7,00	49,00
	Positive Ranks	7[e]	8,00	56,00
	Ties	0[f]		
	Total	14		
CMYK_online - CMYK_lab	Negative Ranks	7[g]	5,71	40,00
	Positive Ranks	5[h]	7,60	38,00
	Ties	2[i]		
	Total	14		
RGB_online - RGB_lab	Negative Ranks	8[j]	7,31	58,50
	Positive Ranks	6[k]	7,75	46,50
	Ties	0[l]		
	Total	14		
Lab_online - Lab_lab	Negative Ranks	7[m]	6,21	43,50
	Positive Ranks	6[n]	7,92	47,50
	Ties	1[o]		
	Total	14		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-2,205[b]	-,220[c]	-,079[b]	-,378[b]	-,140[c]
Asymp. Sig. (2-tailed)	,027	,826	,937	,706	,889

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

```
NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 11:57:51
Comments		
Input	Active Dataset	DataSet2
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	Split File	<none>
	N of Rows in Working Data File	88
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	23	.05870	.088282	.000	.300
LCh_lab	23	.13739	.117520	.050	.380
CMYK_lab	23	.13043	.028521	.030	.160
RGB_lab	23	.18391	.039856	.060	.230
Lab_lab	23	.14435	.027274	.050	.180
HSV_online	68	.03765	.061840	.000	.320
LCh_online	68	.12250	.095938	.050	.400
CMYK_online	68	.13618	.016210	.070	.160
RGB_online	68	.18735	.019287	.100	.220
Lab_online	68	.14735	.013888	.080	.180

Wilcoxon Signed Ranks Test - Question 11

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	12[a]	8,46	101,50
	Positive Ranks	6[b]	11,58	69,50
	Ties	5[c]		
	Total	23		
LCh_online - LCh_lab	Negative Ranks	8[d]	12,19	97,50
	Positive Ranks	10[e]	7,35	73,50
	Ties	5[f]		
	Total	23		
CMYK_online - CMYK_lab	Negative Ranks	10[g]	8,05	80,50
	Positive Ranks	6[h]	9,25	55,50
	Ties	7[i]		
	Total	23		
RGB_online - RGB_lab	Negative Ranks	13[j]	8,42	109,50
	Positive Ranks	4[k]	10,88	43,50
	Ties	6[l]		
	Total	23		
Lab_online - Lab_lab	Negative Ranks	11[m]	6,91	76,00
	Positive Ranks	4[n]	11,00	44,00
	Ties	8[o]		
	Total	23		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-,700[b]	-,523[b]	-,651[b]	-1,577[b]	-,915[b]
Asymp. Sig. (2-tailed)	,484	,601	,515	,115	,360

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

```
NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 11:59:46
Comments		
Input	Active Dataset	DataSet2
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.

Syntax		NPAR TESTS
		  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED)
		  /STATISTICS DESCRIPTIVES…

Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	21	.10667	.126386	.010	.360
LCh_lab	21	.23429	.066376	.160	.390
CMYK_lab	21	.13143	.039659	.050	.200
RGB_lab	21	.15095	.077583	.020	.280
Lab_lab	21	.17429	.072840	.020	.280
HSV_online	71	.07648	.110235	.000	.510
LCh_online	71	.24437	.063847	.160	.400
CMYK_online	71	.11620	.050068	.040	.280
RGB_online	71	.12930	.088371	.010	.360
Lab_online	71	.14845	.086365	.010	.330

Wilcoxon Signed Ranks Test - Question 12

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	10[a]	6,65	66,50
	Positive Ranks	4[b]	9,63	38,50
	Ties	7[c]		
	Total	21		
LCh_online - LCh_lab	Negative Ranks	7[d]	11,00	77,00
	Positive Ranks	13[e]	10,23	133,00
	Ties	1[f]		
	Total	21		
CMYK_online - CMYK_lab	Negative Ranks	9[g]	9,89	89,00
	Positive Ranks	7[h]	6,71	47,00
	Ties	5[i]		
	Total	21		
RGB_online - RGB_lab	Negative Ranks	11[j]	10,09	111,00
	Positive Ranks	8[k]	9,88	79,00
	Ties	2[l]		
	Total	21		
Lab_online - Lab_lab	Negative Ranks	11[m]	10,36	114,00
	Positive Ranks	8[n]	9,50	76,00
	Ties	2[o]		
	Total	21		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-,881[b]	-1,053[c]	-1,089[b]	-,645[b]	-,765[b]
Asymp. Sig. (2-tailed)	,378	,292	,276	,519	,444

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

```
NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 12:01:03
Comments		
Input	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	53
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	16	.27125	.156072	.020	.450
LCh_lab	16	.16625	.097014	.050	.330
CMYK_lab	16	.18750	.130971	.030	.330
RGB_lab	16	.24500	.157945	.030	.410
Lab_lab	16	.22688	.122241	.010	.360
HSV_online	53	.14434	.157242	.010	.430
LCh_online	53	.19868	.087046	.060	.380
CMYK_online	53	.13962	.109702	.040	.330
RGB_online	53	.12774	.151932	.000	.410
Lab_online	53	.14472	.109291	.030	.350

Wilcoxon Signed Ranks Test - Question 13

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	11[a]	8,36	92,00
	Positive Ranks	3[b]	4,33	13,00
	Ties	2[c]		
	Total	16		
LCh_online - LCh_lab	Negative Ranks	5[d]	8,50	42,50
	Positive Ranks	10[e]	7,75	77,50
	Ties	1[f]		
	Total	16		
CMYK_online - CMYK_lab	Negative Ranks	11[g]	8,73	96,00
	Positive Ranks	4[h]	6,00	24,00
	Ties	1[i]		
	Total	16		
RGB_online - RGB_lab	Negative Ranks	14[j]	7,79	109,00
	Positive Ranks	1[k]	11,00	11,00
	Ties	1[l]		
	Total	16		
Lab_online - Lab_lab	Negative Ranks	12[m]	8,54	102,50
	Positive Ranks	3[n]	5,83	17,50
	Ties	1[o]		
	Total	16		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	$-2{,}482^b$	$-{,}995^c$	$-2{,}047^b$	$-2{,}786^b$	$-2{,}420^b$
Asymp. Sig. (2-tailed)	,013	,320	,041	,005	,016

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

```
 NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 12:03:00
Comments		
Input	Active Dataset	DataSet2
	Filter	<none>
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	Split File	<none>
	N of Rows in Working Data File	81
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	22	.11864	.144232	.000	.450
LCh_lab	22	.29955	.089362	.130	.470
CMYK_lab	22	.09727	.049007	.030	.230
RGB_lab	22	.13273	.134064	.000	.440
Lab_lab	22	.13364	.094443	.030	.370
HSV_online	81	.09951	.119697	.000	.510
LCh_online	81	.29185	.127888	.040	.470
CMYK_online	81	.09358	.050924	.030	.260
RGB_online	81	.11481	.117240	.000	.480
Lab_online	81	.12333	.091869	.010	.420

Wilcoxon Signed Ranks Test - Question 14

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	10[a]	10,95	109,50
	Positive Ranks	12[b]	11,96	143,50
	Ties	0[c]		
	Total	22		
LCh_online - LCh_lab	Negative Ranks	9[d]	13,83	124,50
	Positive Ranks	13[e]	9,88	128,50
	Ties	0[f]		
	Total	22		
CMYK_online - CMYK_lab	Negative Ranks	7[g]	10,21	71,50
	Positive Ranks	12[h]	9,88	118,50
	Ties	3[i]		
	Total	22		
RGB_online - RGB_lab	Negative Ranks	8[j]	11,31	90,50
	Positive Ranks	11[k]	9,05	99,50
	Ties	3[l]		
	Total	22		
Lab_online - Lab_lab	Negative Ranks	9[m]	10,06	90,50
	Positive Ranks	11[n]	10,86	119,50
	Ties	2[o]		
	Total	22		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-,552[b]	-,065[b]	-,948[b]	-,181[b]	-,542[b]
Asymp. Sig. (2-tailed)	,581	,948	,343	,856	,588

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

```
NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 12:04:36
Comments		
Input	Active Dataset	DataSet2
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	72
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	16	.09000	.035590	.020	.180
LCh_lab	16	.30313	.078716	.070	.400
CMYK_lab	16	.06250	.026957	.020	.110
RGB_lab	16	.11000	.047046	.040	.200
Lab_lab	16	.12563	.062286	.040	.240
HSV_online	72	.11292	.084210	.020	.440
LCh_online	72	.30403	.070003	.070	.410
CMYK_online	72	.06208	.030021	.010	.180
RGB_online	72	.11222	.043677	.030	.210
Lab_online	72	.12528	.061460	.030	.280

Wilcoxon Signed Ranks Test - Question 15

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	5[a]	6,50	32,50
	Positive Ranks	8[b]	7,31	58,50
	Ties	3[c]		
	Total	16		
LCh_online - LCh_lab	Negative Ranks	6[d]	8,50	51,00
	Positive Ranks	8[e]	6,75	54,00
	Ties	2[f]		
	Total	16		
CMYK_online - CMYK_lab	Negative Ranks	7[g]	8,64	60,50
	Positive Ranks	8[h]	7,44	59,50
	Ties	1[i]		
	Total	16		
RGB_online - RGB_lab	Negative Ranks	6[j]	10,08	60,50
	Positive Ranks	10[k]	7,55	75,50
	Ties	0[l]		
	Total	16		
Lab_online - Lab_lab	Negative Ranks	6[m]	10,92	65,50
	Positive Ranks	10[n]	7,05	70,50
	Ties	0[o]		
	Total	16		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-,911[b]	-,094[b]	-,028[c]	-,389[b]	-,130[b]
Asymp. Sig. (2-tailed)	,362	,925	,977	,697	,897

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

c. Based on positive ranks.

```
NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 12:06:38
Comments		
Input	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	63
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	15	.20867	.103776	.010	.390
LCh_lab	15	.21867	.121706	.070	.430
CMYK_lab	15	.10333	.051083	.030	.190
RGB_lab	15	.15933	.068292	.050	.330
Lab_lab	15	.12400	.078722	.020	.320
HSV_online	63	.19492	.121016	.000	.400
LCh_online	63	.17159	.089806	.060	.440
CMYK_online	63	.10159	.055799	.020	.230
RGB_online	63	.14571	.071678	.020	.320
Lab_online	63	.10794	.060004	.010	.300

Wilcoxon Signed Ranks Test - Question 1 6

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	12[a]	8,17	98,00
	Positive Ranks	3[b]	7,33	22,00
	Ties	0[c]		
	Total	15		
LCh_online - LCh_lab	Negative Ranks	11[d]	9,14	100,50
	Positive Ranks	4[e]	4,88	19,50
	Ties	0[f]		
	Total	15		
CMYK_online - CMYK_lab	Negative Ranks	5[g]	6,60	33,00
	Positive Ranks	10[h]	8,70	87,00
	Ties	0[i]		
	Total	15		
RGB_online - RGB_lab	Negative Ranks	5[j]	8,20	41,00
	Positive Ranks	9[k]	7,11	64,00
	Ties	1[l]		
	Total	15		
Lab_online - Lab_lab	Negative Ranks	6[m]	7,33	44,00
	Positive Ranks	8[n]	7,63	61,00
	Ties	1[o]		
	Total	15		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-2,160[b]	-2,303[b]	-1,537[c]	-,726[c]	-,535[c]
Asymp. Sig. (2-tailed)	,031	,021	,124	,468	,593

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

```
NPAR TESTS
  /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_onlin
e CMYK_online RGB_online Lab_online (PAIRED)
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		04-OCT-2016 12:08:09
Comments		
Input	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	71
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=HSV_lab LCh_lab CMYK_lab RGB_lab Lab_lab WITH HSV_online LCh_online CMYK_online RGB_online Lab_online (PAIRED) /STATISTICS DESCRIPTIVES…
Resources	Processor Time	00:00:00,01
	Elapsed Time	00:00:00,00
	Number of Cases Allowed[a]	52428

a. Based on availability of workspace memory.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HSV_lab	23	.06826	.102276	.020	.380
LCh_lab	23	.16261	.059024	.080	.310
CMYK_lab	23	.04522	.016200	.020	.070
RGB_lab	23	.10304	.057401	.030	.200
Lab_lab	23	.11304	.051118	.030	.180
HSV_online	71	.08099	.128042	.000	.450
LCh_online	71	.16690	.062349	.070	.310
CMYK_online	71	.05183	.026528	.020	.150
RGB_online	71	.10127	.064297	.010	.290
Lab_online	71	.10958	.054312	.020	.240

Wilcoxon Signed Ranks Test - Question 17

Ranks

		N	Mean Rank	Sum of Ranks
HSV_online - HSV_lab	Negative Ranks	9[a]	6,83	61,50
	Positive Ranks	7[b]	10,64	74,50
	Ties	7[c]		
	Total	23		
LCh_online - LCh_lab	Negative Ranks	8[d]	12,75	102,00
	Positive Ranks	14[e]	10,79	151,00
	Ties	1[f]		
	Total	23		
CMYK_online - CMYK_lab	Negative Ranks	7[g]	6,57	46,00
	Positive Ranks	9[h]	10,00	90,00
	Ties	7[i]		
	Total	23		
RGB_online - RGB_lab	Negative Ranks	9[j]	10,83	97,50
	Positive Ranks	11[k]	10,23	112,50
	Ties	3[l]		
	Total	23		
Lab_online - Lab_lab	Negative Ranks	10[m]	10,20	102,00
	Positive Ranks	11[n]	11,73	129,00
	Ties	2[o]		
	Total	23		

a. HSV_online < HSV_lab

b. HSV_online > HSV_lab

c. HSV_online = HSV_lab

d. LCh_online < LCh_lab

e. LCh_online > LCh_lab

e. LCh_online > LCh_lab

f. LCh_online = LCh_lab

g. CMYK_online < CMYK_lab

h. CMYK_online > CMYK_lab

i. CMYK_online = CMYK_lab

j. RGB_online < RGB_lab

k. RGB_online > RGB_lab

l. RGB_online = RGB_lab

m. Lab_online < Lab_lab

n. Lab_online > Lab_lab

o. Lab_online = Lab_lab

Test Statistics[a]

	HSV_online - HSV_lab	LCh_online - LCh_lab	CMYK_online - CMYK_lab	RGB_online - RGB_lab	Lab_online - Lab_lab
Z	-,337[b]	-,797[b]	-1,148[b]	-,281[b]	-,470[b]
Asymp. Sig. (2-tailed)	,736	,426	,251	,779	,638

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.