

Univariate Analysis of Variance: Case $\alpha=1$

Between-Subjects Factors

		N
n	8	180
	10	180
	12	180
m1	2	270
	4	270
m2	1	540
PROBLEM	CO (SA)	180
	SA	180
	SM(SA)	180

Tests of Between-Subjects Effects

Dependent Variable: TCT

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	650067964.267 ^a	17	38239292.016	220.324	.000
Intercept	7744566481.667	1	7744566481.667	44622.097	.000
n	598418565.211	2	299209282.606	1723.963	.000
m1	10505745.185	1	10505745.185	60.531	.000
m2	.000	0	.	.	.
PROBLEM	36846871.511	2	18423435.756	106.151	.000
n * m1	172568.337	2	86284.169	.497	.609
n * m2	.000	0	.	.	.
n * PROBLEM	3985243.578	4	996310.894	5.740	.000
m1 * m2	.000	0	.	.	.
m1 * PROBLEM	116040.637	2	58020.319	.334	.716
m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2	.000	0	.	.	.
n * m1 * PROBLEM	22929.807	4	5732.452	.033	.998
n * m2 * PROBLEM	.000	0	.	.	.
m1 * m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2 * PROBLEM	.000	0	.	.	.
Error	90597798.067	522	173559.000		
Total	8485232244.000	540			
Corrected Total	740665762.333	539			

a. R Squared = .878 (Adjusted R Squared = .874)

Post Hoc Tests

n

Multiple Comparisons

Dependent Variable: TCT

Tukey HSD

(I) n	(J) n	Mean Difference		Sig.	95% Confidence Interval	
		(I-J)	Std. Error		Lower Bound	Upper Bound
8	10	-1212.66*	43.914	.000	-1315.87	-1109.44
	12	-2577.09*	43.914	.000	-2680.31	-2473.88
10	8	1212.66*	43.914	.000	1109.44	1315.87
	12	-1364.44*	43.914	.000	-1467.65	-1261.22
12	8	2577.09*	43.914	.000	2473.88	2680.31
	10	1364.44*	43.914	.000	1261.22	1467.65

Based on observed means.

The error term is Mean Square(Error) = 173559.000.

*. The mean difference is significant at the .05 level.

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

n	N	Subset		
		1	2	3
8	180	2523.81		
10	180		3736.46	
12	180			5100.90
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 173559.000.

a. Uses Harmonic Mean Sample Size = 180.000.

b. Alpha = .05.

PROBLEM

Multiple Comparisons

Dependent Variable: TCT

Tukey HSD

(I)	(J)	Mean	Std.		95%	
PROBLEM	PROBLEM	Difference	Error	Sig.	Confidence	
		(I-J)			Interval	
					Lower	
					Bound	
CO (SA)	SA	146.46*	43.914	.003	43.24	
	SM(SA)	-466.19*	43.914	.000	-569.40	
SA	CO (SA)	-146.46*	43.914	.003	-249.67	
	SM(SA)	-612.64*	43.914	.000	-715.86	
SM(SA)	CO (SA)	466.19*	43.914	.000	362.97	
	SA	612.64*	43.914	.000	509.43	

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

PROBLEM	N	Subset		
		1	2	3
SA	180	3534.02		
CO (SA)	180		3680.48	
SM(SA)	180			4146.67
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 173559.000.

a. Uses Harmonic Mean Sample Size = 180.000.

b. Alpha = .05.

Univariate Analysis of Variance: Case $\alpha=2$

Between-Subjects Factors

N		
n	8	180
	10	180
	12	180
m1	2	270
	4	270
m2	1	540
PROBLEM	CO (SA)	180
	SA	180
	SM(SA)	180

Tests of Between-Subjects Effects

Dependent Variable: TCT

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1601363083.600 ^a	17	94197828.447	88.328	.000
Intercept	17707013744.067	1	17707013744.067	16603.715	.000
n	1491429625.478	2	745714812.739	699.250	.000
m1	1593488.067	1	1593488.067	1.494	.222
m2	.000	0	.	.	.
PROBLEM	89204373.144	2	44602186.572	41.823	.000
n * m1	4412318.878	2	2206159.439	2.069	.127
n * m2	.000	0	.	.	.
n * PROBLEM	14536601.911	4	3634150.478	3.408	.009
m1 * m2	.000	0	.	.	.
m1 * PROBLEM	27385.811	2	13692.906	.013	.987
m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2	.000	0	.	.	.
n * m1 * PROBLEM	159290.311	4	39822.578	.037	.997
n * m2 * PROBLEM	.000	0	.	.	.
m1 * m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2 * PROBLEM	.000	0	.	.	.
Error	556686320.333	522	1066448.890		
Total	19865063148.000	540			
Corrected Total	2158049403.933	539			

a. R Squared = .742 (Adjusted R Squared = .734)

Post Hoc Tests

n

Multiple Comparisons

Dependent Variable: TCT

Tukey HSD

(I) n	(J) n	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
		(I-J)			Lower Bound	Upper Bound
8	10	-1888.37*	108.855	.000	-2144.23	-1632.52
	12	-4067.34*	108.855	.000	-4323.20	-3811.49
10	8	1888.37*	108.855	.000	1632.52	2144.23
	12	-2178.97*	108.855	.000	-2434.83	-1923.12
12	8	4067.34*	108.855	.000	3811.49	4323.20
	10	2178.97*	108.855	.000	1923.12	2434.83

Based on observed means.

The error term is Mean Square(Error) = 1066448.890.

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

n	N	Subset		
		1	2	3
8	180	3741.08		
10	180		5629.46	
12	180			7808.43
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 1066448.890.

a. Uses Harmonic Mean Sample Size = 180.000.

b. Alpha = 0.05.

PROBLEM

Multiple Comparisons

Dependent Variable: TCT

Tukey HSD

(I)	(J)	Mean	Std.		95%	
PROBLEM	PROBLEM	Difference	Error	Sig.	Confidence	
		(I-J)			Interval	
					Lower	
					Bound	
CO (SA)	SA	995.43*	108.855	.000	739.57	
	SM(SA)	483.14*	108.855	.000	227.28	
SA	CO (SA)	-995.43*	108.855	.000	-1251.28	
	SM(SA)	-512.29*	108.855	.000	-768.14	
SM(SA)	CO (SA)	-483.14*	108.855	.000	-738.99	
	SA	512.29*	108.855	.000	256.43	

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

PROBLEM	N	Subset		
		1	2	3
SA	180	5223.75		
SM(SA)	180		5736.04	
CO (SA)	180			6219.18
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 1066448.890.

a. Uses Harmonic Mean Sample Size = 180.000.

b. Alpha = 0.05.

Univariate Analysis of Variance: Case $\alpha=3$

Between-Subjects Factors

		N
n	8	180
	10	180
	12	180
m1	2	270
	4	270
m2	1	540
PROBLEM	CO (SA)	180
	SA	180
	SM(SA)	180

Tests of Between-Subjects Effects

Dependent Variable: TCT

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3409580497.083 ^a	17	200563558.652	72.143	.000
Intercept	34352328914.817	1	34352328914.817	12356.665	.000
n	3030058974.144	2	1515029487.072	544.962	.000
m1	214442.817	1	214442.817	.077	.781
m2	.000	0	.	.	.
PROBLEM	321964095.100	2	160982047.550	57.906	.000
n * m1	14129529.633	2	7064764.817	2.541	.080
n * m2	.000	0	.	.	.
n * PROBLEM	42746166.889	4	10686541.722	3.844	.004
m1 * m2	.000	0	.	.	.
m1 * PROBLEM	133289.211	2	66644.606	.024	.976
m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2	.000	0	.	.	.
n * m1 * PROBLEM	333999.289	4	83499.822	.030	.998
n * m2 * PROBLEM	.000	0	.	.	.
m1 * m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2 * PROBLEM	.000	0	.	.	.
Error	1451193785.100	522	2780064.722		
Total	39213103197.000	540			
Corrected Total	4860774282.183	539			

a. R Squared = .701 (Adjusted R Squared = .692)

Post Hoc Tests

n

Multiple Comparisons

Dependent Variable: TCT

Tukey HSD

(I) n	(J) n	Mean Difference		Sig.	95% Confidence Interval	
		(I-J)	Std. Error		Lower Bound	Upper Bound
8	10	-2654.28*	175.754	.000	-3067.37	-2241.18
	12	-5795.54*	175.754	.000	-6208.63	-5382.44
10	8	2654.28*	175.754	.000	2241.18	3067.37
	12	-3141.26*	175.754	.000	-3554.36	-2728.17
12	8	5795.54*	175.754	.000	5382.44	6208.63
	10	3141.26*	175.754	.000	2728.17	3554.36

Based on observed means.

The error term is Mean Square(Error) = 2780064.722.

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

n	N	Subset		
		1	2	3
8	180	5159.32		
10	180		7813.60	
12	180			10954.86
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 2780064.722.

a. Uses Harmonic Mean Sample Size = 180.000.

b. Alpha = 0.05.

PROBLEM

Multiple Comparisons

Dependent Variable: TCT

Tukey HSD

(I)	(J)	Mean			95%	
PROBLEM	PROBLEM	Difference	Std.	Sig.	Confidence	
		(I-J)	Error		Interval	
					Lower	
					Bound	
CO (SA)	SA	1777.02*	175.754	.000	1363.92	
	SM(SA)	1449.48*	175.754	.000	1036.39	
SA	CO (SA)	-1777.02*	175.754	.000	-2190.11	
	SM(SA)	-327.53	175.754	.150	-740.63	
SM(SA)	CO (SA)	-1449.48*	175.754	.000	-1862.58	
	SA	327.53	175.754	.150	-85.56	

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

PROBLEM	N	Subset	
		1	2
SA	180	7274.41	
SM(SA)	180	7601.94	
CO (SA)	180		9051.43
Sig.		.150	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 2780064.722.

a. Uses Harmonic Mean Sample Size = 180.000.

b. Alpha = 0.05.