

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	519695487.017 ^a	17	30570322.766	180.294	.000
Intercept	5843888874.150	1	5843888874.150	34465.450	.000
n	451951006.178	2	225975503.089	1332.734	.000
m1	17670312.017	1	17670312.017	104.214	.000
m2	.000	0	.	.	.
PROBLEM	43354952.433	2	21677476.217	127.847	.000
n * m1	2019842.844	2	1009921.422	5.956	.003
n * m2	.000	0	.	.	.
n * PROBLEM	4533822.756	4	1133455.689	6.685	.000
m1 * m2	.000	0	.	.	.
m1 * PROBLEM	141347.233	2	70673.617	.417	.659
m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2	.000	0	.	.	.
n * m1 * PROBLEM	24203.556	4	6050.889	.036	.998
n * m2 * PROBLEM	.000	0	.	.	.
m1 * m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2 * PROBLEM	.000	0	.	.	.
Error	88509215.833	522	169557.885		
Total	6452093577.000	540			
Corrected Total	608204702.850	539			

a. R Squared = .854 (Adjusted R Squared = .850)

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	-1082.12*	43.405	.000	-1184.14	-980.10
	12	-2240.48*	43.405	.000	-2342.50	-2138.46
10	8	1082.12*	43.405	.000	980.10	1184.14
	12	-1158.36*	43.405	.000	-1260.37	-1056.34
12	8	2240.48*	43.405	.000	2138.46	2342.50
	10	1158.36*	43.405	.000	1056.34	1260.37

Based on observed means.

The error term is Mean Square(Error) = 169557.885.

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

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

n	N	Subset		
		1	2	3
8	180	2182.15		
10	180		3264.27	
12	180			4422.63
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) = 169557.885.

a. Uses Harmonic Mean Sample Size = 180.000.

b. Alpha = .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	5.18	43.405	.992	-96.84	
	SM (SA)	-598.47*	43.405	.000	-700.49	
SA	CO (SA)	-5.18	43.405	.992	-107.20	
	SM (SA)	-603.65*	43.405	.000	-705.67	
SM (SA)	CO (SA)	598.47*	43.405	.000	496.45	
	SA	603.65*	43.405	.000	501.63	

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

PROBLEM	N	Subset	
		1	2
SA	180	3086.74	
CO (SA)	180	3091.92	
SM (SA)	180		3690.39
Sig.		.992	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 169557.885.

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	1611697281.476 ^a	17	94805722.440	90.608	.000
Intercept	17578189061.157	1	17578189061.157	16799.806	.000
n	1476129566.848	2	738064783.424	705.382	.000
m1	1327792.091	1	1327792.091	1.269	.260
m2	.000	0	.	.	.
PROBLEM	114514000.637	2	57257000.319	54.722	.000
n * m1	4281607.293	2	2140803.646	2.046	.130
n * m2	.000	0	.	.	.
n * PROBLEM	15184554.941	4	3796138.735	3.628	.006
m1 * m2	.000	0	.	.	.
m1 * PROBLEM	57320.948	2	28660.474	.027	.973
m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2	.000	0	.	.	.
n * m1 * PROBLEM	202438.719	4	50609.680	.048	.996
n * m2 * PROBLEM	.000	0	.	.	.
m1 * m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2 * PROBLEM	.000	0	.	.	.
Error	546185742.367	522	1046332.840		
Total	19736072085.000	540			
Corrected Total	2157883023.843	539			

a. R Squared = .747 (Adjusted R Squared = .739)

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	-1879.02*	107.824	.000	-2132.45	-1625.59
	12	-4046.44*	107.824	.000	-4299.87	-3793.01
10	8	1879.02*	107.824	.000	1625.59	2132.45
	12	-2167.43*	107.824	.000	-2420.86	-1914.00
12	8	4046.44*	107.824	.000	3793.01	4299.87
	10	2167.43*	107.824	.000	1914.00	2420.86

Based on observed means.

The error term is Mean Square(Error) = 1046332.840.

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

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

n	N	Subset		
		1	2	3
8	180	3730.30		
10	180		5609.32	
12	180			7776.74
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) = 1046332.840.

a. Uses Harmonic Mean Sample Size = 180.000.

b. Alpha = .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	1126.74*	107.824	.000	873.31	
	SM (SA)	517.34*	107.824	.000	263.91	
SA	CO (SA)	-1126.74*	107.824	.000	-1380.17	
	SM (SA)	-609.40*	107.824	.000	-862.83	
SM (SA)	CO (SA)	-517.34*	107.824	.000	-770.77	
	SA	609.40*	107.824	.000	355.97	

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

PROBLEM	N	Subset		
		1	2	3
SA	180	5126.74		
SM (SA)	180		5736.14	
CO (SA)	180			6253.48
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) = 1046332.840.

a. Uses Harmonic Mean Sample Size = 180.000.

b. Alpha = .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	3425428055.098 ^a	17	201495767.947	74.036	.000
Intercept	33989525805.202	1	33989525805.202	12488.893	.000
n	2983441592.626	2	1491720796.313	548.108	.000
m1	260.417	1	260.417	.000	.992
m2	.000	0	.	.	.
PROBLEM	383086044.959	2	191543022.480	70.379	.000
n * m1	13268984.811	2	6634492.406	2.438	.088
n * m2	.000	0	.	.	.
n * PROBLEM	45345430.730	4	11336357.682	4.165	.002
m1 * m2	.000	0	.	.	.
m1 * PROBLEM	59538.411	2	29769.206	.011	.989
m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2	.000	0	.	.	.
n * m1 * PROBLEM	226203.144	4	56550.786	.021	.999
n * m2 * PROBLEM	.000	0	.	.	.
m1 * m2 * PROBLEM	.000	0	.	.	.
n * m1 * m2 * PROBLEM	.000	0	.	.	.
Error	1420664928.700	522	2721580.323		
Total	38835618789.000	540			
Corrected Total	4846092983.798	539			

a. R Squared = .707 (Adjusted R Squared = .697)

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	-2610.00*	173.896	.000	-3018.73	-2201.27
	12	-5749.43*	173.896	.000	-6158.16	-5340.70
10	8	2610.00*	173.896	.000	2201.27	3018.73
	12	-3139.43*	173.896	.000	-3548.16	-2730.70
12	8	5749.43*	173.896	.000	5340.70	6158.16
	10	3139.43*	173.896	.000	2730.70	3548.16

Based on observed means.

The error term is Mean Square(Error) = 2721580.323.

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

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

n	N	Subset		
		1	2	3
8	180	5147.22		
10	180		7757.22	
12	180			10896.65
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) = 2721580.323.

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	1981.57*	173.896	.000	1572.84	
	SM (SA)	1488.21*	173.896	.000	1079.48	
SA	CO (SA)	-1981.57*	173.896	.000	-2390.29	
	SM (SA)	-493.36*	173.896	.013	-902.09	
SM (SA)	CO (SA)	-1488.21*	173.896	.000	-1896.93	
	SA	493.36*	173.896	.013	84.63	

Homogeneous Subsets

TCT

Tukey HSD^{a,b}

PROBLEM	N	Subset		
		1	2	3
SA	180	7108.72		
SM (SA)	180		7602.08	
CO (SA)	180			9090.29
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) = 2721580.323.

a. Uses Harmonic Mean Sample Size = 180.000.

b. Alpha = .05.