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LAMPIRAN

Lampiran 1. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada stasiun 1 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.91904234
R Square	0.844638822
Adjusted R Square	0.843829649
Standard Error	0.136005182
Observations	194

ANOVA

	df	SS	MS	F	Significance F
Regression	1	19.30815044	19.30815044	1043.829972	1.4617E-79
Residual	192	3.551502624	0.018497409		
Total	193	22.85965307			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-4.640844217	0.127292708	-36.45805234	3.1334E-88	-4.891915908	-4.389772526
X Variable 1	2.562891513	0.079325961	32.30835762	1.4617E-79	2.406429266	2.71935376

Lampiran 2. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada stasiun 2 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.894880834
R Square	0.800811707
Adjusted R Square	0.799800599
Standard Error	0.12072432
Observations	199

ANOVA

	df	SS	MS	F	Significance F
Regression	1	11.5430976	11.5430976	792.0139463	6.01637E-71
Residual	197	2.871149224	0.014574362		
Total	198	14.41424682			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-4.487001747	0.136593046	-32.84941569	7.34484E-82	-4.756374029	-4.217629465
X Variable 1	2.454185736	0.087204925	28.14274234	6.01637E-71	2.282210732	2.62616074

Lampiran 3. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada stasiun 3 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	**0.919390716**
R Square	**0.845279288**
Adjusted R Square	**0.844546015**
Standard Error	**0.122040055**
Observations	**213**

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	17.16876364	17.16876364	1152.747606	1.87402E-87
Residual	211	3.142586554	0.014893775		
Total	212	20.31135019			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-4.32943058	0.1094871	-39.54283719	1.5749E-99	-4.545259287	-4.113601873
X Variable 1	2.346492156	0.069111766	33.95213699	1.87402E-87	2.21025416	2.482730152

Lampiran 4. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Juni di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.968281737
R Square	0.937569523
Adjusted R Square	0.93691236
Standard Error	0.090282339
Observations	97

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	11.62883028	11.62883028	1426.69267	5.09304E-59
Residual	95	0.774335566	0.008150901		
Total	96	12.40316585			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-5.535606496	0.134226463	-41.24079825	1.94118E-62	-5.802079717	-5.269133275
X Variable 1	3.044814786	0.080611252	37.77158549	5.09304E-59	2.884781217	3.204848354

Lampiran 5. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Juli di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.929306144
R Square	0.86360991
Adjusted R Square	0.863124536
Standard Error	0.115316637
Observations	283

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	23.6605622	23.6605622	1779.266984	1.3989E-123
Residual	281	3.736717444	0.013297927		
Total	282	27.39727964			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-4.452583489	0.092395948	-48.19024652	7.3098E-138	-4.634459561	-4.270707417
X Variable 1	2.449425293	0.058068905	42.18135825	1.3989E-123	2.335120016	2.56373057

Lampiran 6. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Agustus di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.846186463
R Square	0.71603153
Adjusted R Square	0.714763814
Standard Error	0.135910744
Observations	226

ANOVA

	df	SS	MS	F	Significance F
Regression	1	10.43320214	10.43320214	564.819971	3.66741E-63
Residual	224	4.137667576	0.01847173		
Total	225	14.57086972			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-4.344145728	0.15317716	-28.36027077	4.45934E-76	-4.645998318	-4.042293138
X Variable 1	2.361813377	0.09937807	23.76594141	3.66741E-63	2.165977864	2.55764889

Lampiran 7. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Juni stasiun 1 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	**0.992727085**
R Square	**0.985507066**
Adjusted R Square	**0.984903194**
Standard Error	**0.052498813**
Observations	**26**

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	**1**	**4.497939904**	**4.497939904**	**1631.979411**	**1.39352E-23**
Residual	**24**	**0.06614701**	**0.002756125**		
Total	**25**	**4.564086914**			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	**-5.77609873**	**0.136185448**	**-42.41347954**	**4.39884E-24**	**-6.057171681**	**-5.495025779**
X Variable 1	**3.197498933**	**0.079150392**	**40.39776492**	**1.39352E-23**	**3.034140552**	**3.360857313**

Lampiran 8. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Juni stasiun 2 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.950236845
R Square	0.902950062
Adjusted R Square	0.898097565
Standard Error	0.100021603
Observations	22

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	1.861598776	1.861598776	186.0794718	1.36779E-11
Residual	20	0.200086421	0.010004321		
Total	21	2.061685197			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-5.366576505	0.361691132	-14.8374567	2.94154E-12	-6.121050985	-4.612102025
X Variable 1	2.947425119	0.21606954	13.64109496	1.36779E-11	2.496711955	3.398138282

Lampiran 9. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Juni stasiun 3 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.944529238
R Square	0.892135481
Adjusted R Square	0.889840491
Standard Error	0.097969369
Observations	49

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	3.731046639	3.731046639	388.7317912	2.29059E-24
Residual	47	0.451105868	0.009597997		
Total	48	4.182152507			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-5.196605478	0.233906436	-22.21659893	1.42769E-26	-5.667164532	-4.726046424
X Variable 1	2.827843176	0.143426794	19.71628239	2.29059E-24	2.539305684	3.116380669

Lampiran 10. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Juli stasiun 1 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.944058314
R Square	0.891246101
Adjusted R Square	0.890136367
Standard Error	0.102762343
Observations	100

ANOVA

	df	SS	MS	F	Significance F
Regression	1	8.48099637	8.48099637	803.1171159	5.19384E-49
Residual	98	1.034889716	0.010560099		
Total	99	9.515886086			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-4.673530761	0.147700886	-31.64186013	3.03564E-53	-4.966638361	-4.380423161
X Variable 1	2.593567959	0.091518352	28.33932102	5.19384E-49	2.411952768	2.77518315

Lampiran 11. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Juli stasiun 2 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.890474194
R Square	0.79294429
Adjusted R Square	0.790668953
Standard Error	0.128140548
Observations	93

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	5.722291947	5.722291947	348.4952455	7.11806E-33
Residual	91	1.494220004	0.01642		
Total	92	7.216511952			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-4.676275922	0.216434067	-21.60600678	1.34869E-37	-5.106195608	-4.246356236
X Variable 1	2.583449739	0.138389005	18.66802736	7.11806E-33	2.308556981	2.858342498

Lampiran 12. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Juli stasiun 3 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.943489416
R Square	0.890172278
Adjusted R Square	0.888924236
Standard Error	0.109692265
Observations	90

ANOVA

	df	SS	MS	F	Significance F
Regression	1	8.582163296	8.582163296	713.2548993	5.55215E-44
Residual	88	1.058850589	0.012032393		
Total	89	9.641013884			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-4.118173825	0.133681188	-30.80593367	6.4587E-49	-4.383837096	-3.852510554
X Variable 1	2.24042436	0.083889558	26.70683245	5.55215E-44	2.073711493	2.407137228

Lampiran 13. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Agustus stasiun 1 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.774859368
R Square	0.60040704
Adjusted R Square	0.594352601
Standard Error	0.178730703
Observations	68

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	3.167890864	3.167890864	99.16807494	8.92348E-15
Residual	66	2.108347844	0.031944664		
Total	67	5.276238709			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-4.116295618	0.343910158	-11.96910158	3.40608E-18	-4.802934403	-3.429656833
X Variable 1	2.218079869	0.222736422	9.958316873	8.92348E-15	1.773372254	2.662787484

Lampiran 14. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Agustus stasiun 2 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.857613319
R Square	0.735500606
Adjusted R Square	0.732275003
Standard Error	0.111312622
Observations	84

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	2.82527697	2.82527697	228.0196134	2.12809E-25
Residual	82	1.016020982	0.0123905		
Total	83	3.841297952			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-4.252076395	0.234690413	-18.11781036	2.09896E-30	-4.718950389	-3.785202402
X Variable 1	2.301815452	0.152434896	15.10031832	2.12809E-25	1.998573885	2.605057019

Lampiran 15. Analisis regresi hubungan panjang - bobot ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Agustus stasiun 3 di Sungai Manrepo, Kawasan Karst Maros

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.906346779
R Square	0.821464483
Adjusted R Square	0.818984823
Standard Error	0.116133027
Observations	74

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	4.467948456	4.467948456	331.2811017	1.1893E-28
Residual	72	0.971055358	0.01348688		
Total	73	5.439003814			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-4.623280211	0.215004421	-21.50318675	4.60722E-33	-5.051883691	-4.194676732
X Variable 1	2.539653936	0.139532768	18.20112913	1.1893E-28	2.261500446	2.817807426

Lampiran 16. Uji statistik koefisien regresi keseluruhan ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada Stasiun 1 dan 2 di Sungai Manrepo, Kawasan Karst Maros

$$JKS_1 = \sum (Y_1 - \bar{Y}_1)^2 - \frac{\sum (X_1 - \bar{X}_1)\,(Y_1 - \bar{Y}_1)}{\sum (X_1 - \bar{X}_1)^2}$$

$$= \sum (22.8597) - \frac{\sum (7.5337)}{\sum (2.9395)}$$

$$= 3.5515$$

$$JKS_2 = \sum (Y_2 - \bar{Y}_2)^2 - \frac{\left(\sum (X_2 - \bar{X}_2)(Y_2 - \bar{Y}_2)\right)^2}{\sum (X_2 - \bar{X}_2)^2}$$

$$= \sum (14.4142) - \frac{\sum (4.7034)}{\sum (1.9165)}$$

$$= 2.8711$$

$$S_P^2 = \frac{JKS_1 + JKS_2}{(n_1 - 2) + (n_2 - 2)}$$

$$= \frac{3.5515 + 2.8711}{(194-2) + (199-2)}$$

$$= 0.0165$$

$$t = \frac{(b_1 - b_2)}{\sqrt{Var\,(b_{1-}b_2)}}$$

$$= \frac{(2.5629 - 2.4542)}{\sqrt{0.1193}}$$

$$= 0.9112$$

$$var(b_1 - b_2) = \frac{S_p^2}{\sum (X_1 - \bar{X}_1)^2} + \frac{S_p^2}{\sum (X_2 - \bar{X}_2)^2}$$

$$= \frac{0.0165}{2.9395} + \frac{0.0165}{1.9165}$$

$$= 0.0142$$

$t_{0.05(330)} = 1.9661$

Lampiran 17. Uji statistik koefisien regresi keseluruhan ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada Stasiun 2 dan 3 di Sungai Manrepo, Kawasan Karst Maros

$$JKS_1 \;=\; \sum (Y_1 - \bar{Y}_1)^2 - \frac{\sum (X_1 - \bar{X}_1)\,(Y_1 - \bar{Y}_1)}{\sum (X_1 - \bar{X}_1)^2}$$

$$= \sum (14.4142) - \frac{\sum (4.7034)}{\sum (1.9165)}$$

$$= 2.8711$$

$$JKS_2 \;=\; \sum (Y_2 - \bar{Y}_2)^2 - \frac{\left(\sum (X_2 - \bar{X}_2)(Y_2 - \bar{Y}_2)\right)^2}{\sum (X_2 - \bar{X}_2)^2}$$

$$= \sum (20.3114) - \frac{\sum (7.3168)}{\sum (3.1182)}$$

$$= 3.1426$$

$$S_P^2 \;=\; \frac{JKS_1 + JKS_2}{(n_1 - 2) + (n_2 - 2)}$$

$$= \frac{2.8711 + 3.1426}{(199 - 2) + (213 - 2)}$$

$$= 0.0147$$

$$t = \frac{(b_1 - b_2)}{\sqrt{\mathrm{Var}\,(b_1 - b_2)}}$$

$$= \frac{(2.4542 - 2.3465)}{\sqrt{0.1114}}$$

$$= 0.9664$$

$$var(b_1 - b_2) \;=\; \frac{S_p^2}{\sum (X_1 - \bar{X}_1)^2} + \frac{S_p^2}{\sum (X_2 - \bar{X}_2)^2}$$

$$= \frac{0.0147}{1.9165} + \frac{0.0147}{3.1182}$$

$$= 0.0124$$

$t_{0.05(330)} = 1.9658$

Lampiran 18. Uji statistik koefisien regresi keseluruhan ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada Stasiun 1 dan 3 di Sungai Manrepo, Kawasan Karst Maros

$$JKS_1 = \sum (Y_1 - \bar{Y}_1)^2 - \frac{\sum(X_1 - \bar{X}_1)(Y_1 - \bar{Y}_1)}{\sum(X_1 - \bar{X}_1)^2}$$

$$= \sum(22.8597) - \frac{\sum(7.5337)}{\sum(2.9395)}$$

$$= 3.5515$$

$$JKS_2 = \sum (Y_2 - \bar{Y}_2)^2 - \frac{\left(\sum(X_2 - \bar{X}_2)(Y_2 - \bar{Y}_2)\right)^2}{\sum(X_2 - \bar{X}_2)^2}$$

$$= \sum(20.3114) - \frac{\sum(7.3168)}{\sum(3.1182)}$$

$$= 3.1426$$

$$S_P^2 = \frac{JKS_1 + JKS_2}{(n_1 - 2) + (n_2 - 2)}$$

$$= \frac{3.5515 + 3.1426}{(194 - 2) + (213 - 2)}$$

$$= 0.0166$$

$$t = \frac{(b_1 - b_2)}{\sqrt{Var(b_1 - b_2)}}$$

$$= \frac{(2.5629 - 2.3465)}{\sqrt{0.1048}}$$

$$= 2.0654$$

$$var(b_1 - b_2) = \frac{S_p^2}{\sum(X_1 - \bar{X}_1)^2} + \frac{S_p^2}{\sum(X_2 - \bar{X}_2)^2}$$

$$= \frac{0.0166}{2.9395} + \frac{0.0166}{3.1182}$$

$$= 0.0110$$

$t_{0.05(330)} = 1.9659$

Lampiran 19. Uji statistik koefisien regresi keseluruhan ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Juni dan Juli di Sungai Manrepo, Kawasan Karst Maros

$$JKS_1 = \sum (Y_1 - \bar{Y}_1)^2 - \frac{\sum (X_1 - \bar{X}_1)(Y_1 - \bar{Y}_1)}{\sum (X_1 - \bar{X}_1)^2}$$

$$= \sum (12.4032) - \frac{\sum (3.8192)}{\sum (1.2543)}$$

$$= 0.7743$$

$$JKS_2 = \sum (Y_2 - \bar{Y}_2)^2 - \frac{\left(\sum (X_2 - \bar{X}_2)(Y_2 - \bar{Y}_2)\right)^2}{\sum (X_2 - \bar{X}_2)^2}$$

$$= \sum (50.8991) - \frac{\sum (19.5643)}{\sum (8.1179)}$$

$$= 3.7486$$

$$S_P^2 = \frac{JKS_1 + JKS_2}{(n_1 - 2) + (n_2 - 2)}$$

$$= \frac{0.7743 + 3.7486}{(97 - 2) + (283 - 2)}$$

$$= 0.0120$$

$$t = \frac{(b_1 - b_2)}{\sqrt{Var\,(b_1 - b_2)}}$$

$$= \frac{(3.0448 - 2.4494)}{\sqrt{0.1052}}$$

$$= 5.6584$$

$$var(b_1 - b_2) = \frac{S_p^2}{\sum (X_1 - \bar{X}_1)^2} + \frac{S_p^2}{\sum (X_2 - \bar{X}_2)^2}$$

$$= \frac{0.0120}{1.2543} + \frac{0.0120}{8.1179}$$

$$= 0.0111$$

$t_{0.05(330)} = 1.9663$

Lampiran 20. Uji statistik koefisien regresi keseluruhan ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Juli dan Agustus di Sungai Manrepo, Kawasan Karst Maros

$$JKS_1 = \sum (Y_1 - \bar{Y}_1)^2 - \frac{\sum (X_1 - \bar{X}_1)(Y_1 - \bar{Y}_1)}{\sum (X_1 - \bar{X}_1)^2}$$

$$= \sum (50.8991) - \frac{\sum (19.5643)}{\sum (8.1179)}$$

$$= 3.7486$$

$$JKS_2 = \sum (Y_2 - \bar{Y}_2)^2 - \frac{\left(\sum (X_2 - \bar{X}_2)(Y_2 - \bar{Y}_2)\right)^2}{\sum (X_2 - \bar{X}_2)^2}$$

$$= \sum (14.5709) - \frac{\sum (4.4175)}{\sum (1.8704)}$$

$$= 4.1377$$

$$S_P^2 = \frac{JKS_1 + JKS_2}{(n_1 - 2) + (n_2 - 2)}$$

$$= \frac{3.7486 + 4.1377}{(283 - 2) + (226 - 2)}$$

$$= 0.0156$$

$$t = \frac{(b_1 - b_2)}{\sqrt{Var\,(b_1 - b_2)}}$$

$$= \frac{(2.4494 - 2.3618)}{\sqrt{0.1014}}$$

$$= 0.8644$$

$$var(b_1 - b_2) = \frac{S_p^2}{\sum (X_1 - \bar{X}_1)^2} + \frac{S_p^2}{\sum (X_2 - \bar{X}_2)^2}$$

$$= \frac{0.0156}{8.1179} + \frac{0.0156}{1.8704}$$

$$= 0.0103$$

$t_{0.05(330)} = 1.9647$

Lampiran 21. Uji statistik koefisien regresi keseluruhan ikan julung-julung paruh panjang (*Dermogenys orientalis* Weber, 1894) pada bulan Juni dan Agustus di Sungai Manrepo, Kawasan Karst Maros

$$JKS_1 = \sum (Y_1 - \bar{Y}_1)^2 - \frac{\sum (X_1 - \bar{X}_1)(Y_1 - \bar{Y}_1)}{\sum (X_1 - \bar{X}_1)^2}$$

$$= \sum (12.4032) - \frac{\sum (3.8192)}{\sum (1.2543)}$$

$$= 0.7743$$

$$JKS_2 = \sum (Y_2 - \bar{Y}_2)^2 - \frac{\left(\sum (X_2 - \bar{X}_2)(Y_2 - \bar{Y}_2)\right)^2}{\sum (X_2 - \bar{X}_2)^2}$$

$$= \sum (14.5709) - \frac{\sum (4.4175)}{\sum (1.8704)}$$

$$= 4.1377$$

$$S_P^2 = \frac{JKS_1 + JKS_2}{(n_1 - 2) + (n_2 - 2)}$$

$$= \frac{0.7743 + 4.1377}{(97 - 2) + (226 - 2)}$$

$$= 0.0154$$

$$t = \frac{(b_1 - b_2)}{\sqrt{Var(b_1 - b_2)}}$$

$$= \frac{(3.0448 - 2.3618)}{\sqrt{0.1432}}$$

$$= 4.7693$$

$$var(b_1 - b_2) = \frac{S_p^2}{\sum (X_1 - \bar{X}_1)^2} + \frac{S_p^2}{\sum (X_2 - \bar{X}_2)^2}$$

$$= \frac{0.0154}{1.2543} + \frac{0.0154}{1.8704}$$

$$= 0.0205$$

$t_{0.05(330)} = 1.9674$