Assessing Differences between Simple Slopes

Basic Input

	beta 1	beta 12
coefficient	18.56	-0.57
var-cov		
beta 1	28.51560	
beta 12	0.06250	-1.32521

# of predictors	3
# of samples	100

Calculator for SE of Simple Slope

BMI	SE
16.00	1.45
18.00	1.03
20.00	0.71
22.00	0.68
24.00	0.95
26.00	1.36
28.00	1.82
30.00	2.29
32.00	2.78

Output (Statistics for Differences between Simple Slopes)

SE	16	18	20	22	24	26	28	30
16								
18	1.24							
20	0.54	0.87						
22	0.35	0.43	0.69					
24	0.30	0.33	0.42	0.81				
26	0.28	0.30	0.35	0.51	1.16			
28	0.27	0.28	0.32	0.42	0.69	1.59		
30	0.27	0.28	0.30	0.37	0.54	0.91	2.05	
32	0.26	0.27	0.29	0.35	0.47	0.69	1.15	2.53

t-value	16	18	20	22	24	26	28	30
16								
18	-0.46							

	A	B	C	D	E	F	G	H	I
41	20	-1.05	-0.65						
42	22	-1.61	-1.34	-0.82					
43	24	-1.90	-1.73	-1.37	-0.70				
44	26	-2.03	-1.91	-1.65	-1.12	-0.49			
45	28	-2.09	-2.00	-1.80	-1.37	-0.82	-0.36		
46	30	-2.13	-2.06	-1.90	-1.54	-1.05	-0.62	-0.28	
47	32	-2.16	-2.10	-1.96	-1.65	-1.22	-0.83	-0.50	-0.22
48									
49									
50	**p-value**	16	18	20	22	24	26	28	30
51	16								
52	18	0.6469							
53	20	0.2948	0.5141						
54	22	0.1113	0.1841	0.4134					
55	24	0.0608	0.0874	0.1738	0.4852				
56	26	0.0456	0.0594	0.1024	0.2659	0.6233			
57	28	0.0391	0.0480	0.0746	0.1733	0.4124	0.7207		
58	30	0.0356	0.0421	0.0608	0.1277	0.2943	0.5341	0.7821	
59	32	0.0335	0.0385	0.0527	0.1018	0.2241	0.4105	0.6207	0.8225
60									
61									
62	**Code**								
63	B14	=($B$7+$B$8*A14^2+$C$8*2*A14)^(1/2)							
64	B15	=($B$6+$B$7*A15^2+$C$8*2*A15)^(1/2)							
65	B16	=($B$6+$B$7*A16^2+$C$8*2*A16)^(1/2)							
66	B17	=($B$6+$B$7*A17^2+$C$8*2*A17)^(1/2)							
67	B18	=($B$6+$B$7*A18^2+$C$8*2*A18)^(1/2)							
68	B19	=($B$6+$B$7*A19^2+$C$8*2*A19)^(1/2)							
69	B20	=($B$6+$B$7*A20^2+$C$8*2*A20)^(1/2)							
70	B21	=($B$6+$B$7*A21^2+$C$8*2*A21)^(1/2)							
71	B22	=($B$6+$B$7*A22^2+$C$8*2*A22)^(1/2)							
72									
73	B28	=(B15+$B$13)/2							
74	B29	=(B16+$B$13)/4							
75	B30	=(B17+$B$13)/6							
76	B31	=(B18+$B$13)/8							
77	B32	=(B19+$B$13)/10							
78	B33	=(B20+$B$13)/12							
79	B34	=(B21+$B$13)/14							
80	B35	=(B22+$B$13)/16							

	A	B	C	D	E	F	G	H	I
81	C29	=(B16+$B$14)/2							
82	C30	=(B17+$B$14)/4							
83	C31	=(B18+$B$14)/6							
84	C32	=(B19+$B$14)/8							
85	C33	=(B20+$B$14)/10							
86	C34	=(B21+$B$14)/12							
87	C35	=(B22+$B$14)/14							
88	D30	=(B17+$B$15)/2							
89	D31	=(B18+$B$16)/4							
90	D32	=(B19+$B$16)/6							
91	D33	=(B20+$B$16)/8							
92	D34	=(B21+$B$16)/10							
93	D35	=(B22+$B$16)/12							
94	E31	=(B18+$B$17)/2							
95	E32	=(B19+$B$17)/4							
96	E33	=(B20+$B$17)/6							
97	E34	=(B21+$B$17)/8							
98	E35	=(B22+$B$17)/10							
99	F32	=(B19+$B$18)/2							
100	F33	=(B20+$B$18)/4							
101	F34	=(B21+$B$18)/6							
102	F35	=(B22+$B$18)/8							
103	G33	=(B20+$B$19)/2							
104	G34	=(B21+$B$19)/4							
105	G35	=(B22+$B$19)/6							
106	H34	=(B21+$B$20)/2							
107	H35	=(B22+$B$20)/4							
108	I35	=(B22+$B$21)/2							
109									
110	B40	=$C$5/B28							
111	B41	=$C$5/B29							
112	B42	=$C$5/B30							
113	B43	=$C$5/B31							
114	B44	=$C$5/B32							
115	B45	=$C$5/B33							
116	B46	=$C$5/B34							
117	B47	=$C$5/B35							
118	C41	=$C$5/C29							
119	C42	=$C$5/C30							
120	C43	=$C$5/C31							

	A	B	C	D	E	F	G	H	I
121	C44	=$C$5/C32							
122	C45	=$C$5/C33							
123	C46	=$C$5/C34							
124	C47	=$C$5/C35							
125	D42	=$C$5/D30							
126	D43	=$C$5/D31							
127	D44	=$C$5/D32							
128	D45	=$C$5/D33							
129	D46	=$C$5/D34							
130	D47	=$C$5/D35							
131	E43	=$C$5/E31							
132	E44	=$C$5/E32							
133	E45	=$C$5/E33							
134	E46	=$C$5/E34							
135	E47	=$C$5/E35							
136	F44	=$C$5/F32							
137	F45	=$C$5/F33							
138	F46	=$C$5/F34							
139	F47	=$C$5/F35							
140	G45	=$C$5/G33							
141	G46	=$C$5/G34							
142	G47	=$C$5/G35							
143	H46	=$C$5/H34							
144	H47	=$C$5/H35							
145	I47	=$C$5/I35							
146									
147	B52	=T.DIST.2T(ABS(B40),$B$10-$B$9-1)							
148	B53	=T.DIST.2T(ABS(B41),$B$10-$B$9-1)							
149	B54	=T.DIST.2T(ABS(B42),$B$10-$B$9-1)							
150	B55	=T.DIST.2T(ABS(B43),$B$10-$B$9-1)							
151	B56	=T.DIST.2T(ABS(B44),$B$10-$B$9-1)							
152	B57	=T.DIST.2T(ABS(B45),$B$10-$B$9-1)							
153	B58	=T.DIST.2T(ABS(B46),$B$10-$B$9-1)							
154	B59	=T.DIST.2T(ABS(B47),$B$10-$B$9-1)							
155	C53	=T.DIST.2T(ABS(C41),$B$10-$B$9-1)							
156	C54	=T.DIST.2T(ABS(C42),$B$10-$B$9-1)							
157	C55	=T.DIST.2T(ABS(C43),$B$10-$B$9-1)							
158	C56	=T.DIST.2T(ABS(C44),$B$10-$B$9-1)							
159	C57	=T.DIST.2T(ABS(C45),$B$10-$B$9-1)							
160	C58	=T.DIST.2T(ABS(C46),$B$10-$B$9-1)							

	A	B	C	D	E	F	G	H	I
161	C59	=T.DIST.2T(ABS(C47),$B$10-$B$9-1)							
162	D54	=T.DIST.2T(ABS(D42),$B$10-$B$9-1)							
163	D55	=T.DIST.2T(ABS(D43),$B$10-$B$9-1)							
164	D56	=T.DIST.2T(ABS(D44),$B$10-$B$9-1)							
165	D57	=T.DIST.2T(ABS(D45),$B$10-$B$9-1)							
166	D58	=T.DIST.2T(ABS(D46),$B$10-$B$9-1)							
167	D59	=T.DIST.2T(ABS(D47),$B$10-$B$9-1)							
168	E55	=T.DIST.2T(ABS(E43),$B$10-$B$9-1)							
169	E56	=T.DIST.2T(ABS(E44),$B$10-$B$9-1)							
170	E57	=T.DIST.2T(ABS(E45),$B$10-$B$9-1)							
171	E58	=T.DIST.2T(ABS(E46),$B$10-$B$9-1)							
172	E59	=T.DIST.2T(ABS(E47),$B$10-$B$9-1)							
173	F56	=T.DIST.2T(ABS(F44),$B$10-$B$9-1)							
174	F57	=T.DIST.2T(ABS(F45),$B$10-$B$9-1)							
175	F58	=T.DIST.2T(ABS(F46),$B$10-$B$9-1)							
176	F59	=T.DIST.2T(ABS(F47),$B$10-$B$9-1)							
177	G57	=T.DIST.2T(ABS(G45),$B$10-$B$9-1)							
178	G58	=T.DIST.2T(ABS(G46),$B$10-$B$9-1)							
179	G59	=T.DIST.2T(ABS(G47),$B$10-$B$9-1)							
180	H58	=T.DIST.2T(ABS(H47),$B$10-$B$9-1)							
181	H59	=T.DIST.2T(ABS(H46),$B$10-$B$9-1)							
182	I59	=T.DIST.2T(ABS(I47),$B$10-$B$9-1)							