```
R version 4.3.1 (2023-06-16 ucrt) -- "Beagle Scouts"
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Platform: x86_64-w64-mingw32/x64 (64-bit)

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'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[Previously saved workspace restored]

> library(PResiduals)
>  rm(list = ls())
> x0 <- c(-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13
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> x1 <- c(-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13
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0.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110.13,-110
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> x2 <- c(-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38
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,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.46,-38.4
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0.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110
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> x3 <- c(-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19
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> x4 <- c(-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19
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9,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19)
> x5 <- c(-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19,-110.19
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> x6 <- c(-105.79,-105.79,-105.79,-105.79,-105.79,-105.79,-105.79,-105.79,-105.79,-105.79,-105.79
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,-105.79,-105.79,-105.79,-105.79)
> x <- c(x0,x1,x2,x3,x4,x5,x6)
> y0 <- c(509,509,409,396,393,312,309,302,933,931,931,931,926,904,904,429,429,435,435,431,429,429
,424,386,49.8,377,373,322,41.8,1094,1083,1079,1032,1021,445,418,428,409,397,389,357,335,336,320,3
05,307,294,272,262,266,257,204,199,188,177,128,127,85.3,57.3,52.7,46.8,1093,1082,1081,1081,1080,1
080,1080,1079,1079,1079,1078,1078,1078,1043,1041,1041,1041,1040,1032,1031,1030,1028,1027,929,868,
795,736,724,723,713,673,643,630,494,508,479,454,445,415,427,427,427,427,427,407,418,404,416,418,4
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9,220,227,211,221,208,201,208,190,204,195,191,172,189,189,178,163,151,128,39.3,138,130,130,119,12
8,128,125,1094,1080,1079,1077,1076,1073,507,456,445,425,430,430,416,416,416,416,416,416,377,353,3
37,309,289,286,286,220,203,199,184,127,1039,1027,989,976,438,429,415,404,383,383,349,379,379,327,
308,308,307,273,232,81.1,230,191,157,137,102,86.6,77.4,69,68.6,53.1,45.6,43.9,1091,1078,1026,1018
,428,418,395,389,337,335,297,309,305,289,200,203,179,188,128,129,127,96.6,94.9,83.6,58.1,51.4,46.
8,1047,450,433,413,388,313,297,1058,1048,1048,1048,1046,1046,1044,1009,896,479,450,442,429,412,41
9,407,383,336,332,305,297,221,179,122,51.9,45.6,46,1092,1086,1078,1033,1033,1020,442,418,428,415,
395,388,363,343,336,299)
> y1 <- c(305,285,261,266,221,199,204,188,177,125,84.1,79.5,56.9,52.7,46.8,1094,1086,1080,1035,10
21,442,418,428,415,395,388,363,343,335,336,300,305,306,293,286,262,266,221,199,204,189,177,126,84
.1,79.5,56.9,52.7,46.8,1090,1080,1078,1078,1077,1038,927,506,454,446,430,417,420,364,335,339,337,
306,304,294,221,177,127,57.3,52.3,46.8,1035,996,984,984,984,983,982,437,437,429,416,419,417,384,3
81,350,330,337,313,304,291,284,283,283,115,59,51.9,1056,1045,1008,999,997,883,479,449,442,430,420
,406,412,382,383,384,362,337,315,305,294,270,221,178,122,53.9,52.3,45.6,1091,1080,1077,1077,1077,
1039,926,504,455,441,418,420,427,364,335,333,305,309,282,259,220,203,179,184,130,56,51.9,46.8,383
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,383,310,304,297,248,243,234,635,635,635,635,635,598,598,343,345,343,345,343,343,327,327,295,49.8
,295,291,245,41.8,675,675,675,623,623,345,345,345,327,327,306,299,297,268,264,249,253,249,249,243
,240,234,200,203,177,128,99.5,41,36.4,675,675,675,675,675,675,675,675,675,675,675,675,675,674,672
,624,624,624,624,624,624,623,623,623,622,511,456,446,405,356,345,345,345,345,345,344,344,344,344,
344,344,344,313,331,332,331,319,319,327,317,321,309,306,294,299,298,252,265,264,251,251,252,252,2
52,251,251,229,220,227,225,222,212,222,221,203,195,189,176,178,163,153,138,120,120,116)
> y2 <- c(113,110,102,100,100,99,95.8,88.7,89.1,88.3,87,86.2,79.9,86.6,80.3,675,675,675,675,675,6
55,456,346,346,340,330,330,330,330,330,330,325,287,266,267,253,251,251,233,220,203,185,97.5,89.1,
41.4,654,654,604,604,349,343,343,331,327,327,327,272,289,289,261,261,254,177,80.7,215,191,158,138
,102,63.6,63.6,59,49.8,675,675,623,623,345,346,345,306,298,281,265,266,253,201,202,179,128,99.1,9
7.9,48.9,43.1,41,36.4,669,348,330,327,299,266,249,665,665,665,665,665,665,665,614,503,452,345,344
,333,332,325,306,296,266,252,249,220,179,85.3,46,41.4,675,675,675,623,623,616,345,344,345,332,332
,331,332,325,306,263,248,252,249,220,200,203,177,99,41,36.4,675,675,675,623,623,345,344,345,332,3
32,331,332,325,306,297,264,264,249,252,249,249,221,200,203,177,99,41,674,674,674,674,674,622,512,
456,346,345,332,332,327,307,297,266,253,249,249,220,177,88.7,41.4,36.4,662,610,610,610,610,609,60
8,344,343,343,333,333,327,327,305,291,291,261,261,259,258,258,251,200,115,59,663,663,615,615,615,
499,451,345,343,331,332,319,322,322,305,294,294,268,251,247,246,220,178,85.3,41.4,281,248,248,203
,189,173,169,157,156,151,134,123,90.3,89.5,406,387,387,387,387,386,386,348,347,347,347,347,347,34
6,230,230,230,230,226,225,219,219,202,176,49.8,198,167,149,146,131)
> y3 <- c(130,125,119,119,118,118,104,103,102,404,402,403,402,403,394,394,394,394,394,244,222,228
,229,229,229,217,217,199,202,201,201,174,172,163,151,153,151,151,136,127,124,120,120,117,117,117,
117,116,112,87.4,84.9,79.9,77.8,73.6,73.2,59.8,55.6,49.8,49.8,46.8,824,799,492,431,430,430,431,43
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,163,151,151,138,124,120,120,120,120,120,120,117,117,117,117,114,87,79,79,78.2,58.1,56,411,410,38
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,39.7,404,402,402,404,394,394,394,394,348,244,225,229,229,229,229,208,199,202,200,176,176,164,141
,118,117,116,112,84.1,77.4,78.2,74.4,57.7,50.6,46,402,374,231,218,217,202)
> y4 <- c(177,165,154,120,120,117,89.9,82.4,776,402,402,402,403,402,402,402,401,374,374,374,375,3
75,374,373,374,374,332,313,233,228,227,224,217,216,216,202,177,162,157,135,119,118,115,115,115,11
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,55.2,51.9,49.3,46.8,404,402,402,403,404,394,394,394,394,394,336,222,228,229,229,229,208,217,217,
216,217,215,199,201,201,174,174,162,151,151,151,136,118,117,117,117,112,91.2,87.4,84.1,78.2,77.8,
72.4,73.6,71.9,59.8,57.7,55.6,51.9,49.8,46.8,796,404,402,403,403,403,402,392,393,393,393,393,393,
393,337,318,236,230,230,222,218,217,216,201,200,174,164,151,137,120,117,117,117,112,87.4,75.7,74,
73.6,50.2,417,417,417,417,393,395,394,367,367,367,367,367,367,367,232,227,227,225,219,219,217,217
,202,202,174,171,166,161,161,160,160,134,115,120,120,119,120,119,117,116,116,110,86.2,77,74,59.8,
59.4,58.1,774,425,425,420,402,401,374,373,373,373,372,372,333,286,228,227,227,222,217,215,216,215
,204,199,180,176,161,154,154,135,120,120,120,120,117,116,116,104,87.4,83.6,71.5,63.1,46.8,45.6,79
8,404,404,404,404,402,402,394,394,394,394,394,394,394,337,318,225,229,229,229,217,216)
> y5 <- c(215,200,200,176,160,151,151,135,120,116,116,114,112,79,78.2,74,71.5,55.6,48.9,46.4,798,
404,404,404,404,402,402,394,394,394,394,394,394,394,337,318,225,229,229,229,217,216,215,200,200,1
76,160,151,151,135,120,116,116,114,112,79,78.2,74,71.5,55.6,48.9,46.4,352,352,278,270,266,214,214
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716,312,286,286,286,276,276,264,264,255,233,212,205,200,186,178,174,171,164,126,91.6,84.9,82.4,70
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,286,286,286,286,286,284,276,276,276,275,275,275,264,262,240,240,232,226,207,212,207,205,189,199,
185,189,186,186,183,182,170,175,163,167,166,164,149,127,39.3,130,131,130,130,127,127,124,110,99,9
9.1,99.5,99.5,95.4,90.3,90.8,90.3,91.2,79.5,734,733,722,722,721,720,504,312,312,286,287,286,285,2
86,285,285,285,285,285,244,200,197,197,183,180,174,126,99,90.8,82.4,696,694,683,683,301,301,289,2
84,267,256,256,230,245,243,226,208,208,202,202,156,117,115,86.6,77.8,68.6,53.1,43.9,39.7,733,721,
721,714,296,286,286,276,256,253,213,200,186,180,164,128,125,94.1,91.6,82.4,82.4)
> y6 <- c(70.7,58.5,57.7,51,46.8,691,316,288,281,265,206,204,704,704,703,695,694,694,693,693,691,
477,309,288,288,281,277,278,260,222,200,166,121,99,91.2,71.1,51.9,45.6,734,729,729,722,714,675,29
7,309,287,287,284,276,257,253,232,212,186,179,177,174,164,124,91.2,82.8,82.8,79,70.7,58.5,56.9,52
.3,46.8,735,730,729,722,716,298,308,287,287,284,276,258,253,232,212,212,205,199,186,180,178,174,1
64,124,91.2,82.8,79.5,82.4,70.7,58.5,56.9,52.3,46.8,734,733,732,723,721,721,721,503,313,286,285,2
87,276,233,216,213,205,197,164,125,99,91.2,70.7,57.3,51.9,46.8,696,684,684,684,684,683,683,300,30
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31,723,721,720,720,502,307,288,286,286,276,233,210,200,193,183,170,164,129,99,91.2,82.4,70.7,56,5
1.4,46.8)
> y <- c(y0,y1,y2,y3,y4,y5,y6)
> z0 <- c(574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574
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> z1 <- c(574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574,574
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> z4 <- c(435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435
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> z5 <- c(435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435,435
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> z6 <- c(409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409
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9,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409,409)
> z <- c(z0,z1,z2,z3,z4,z5,z6)
>  partial_Spearman(x | y ~ z)
                      est     stderr            p  lower CI  upper CI
partial Spearman 0.2611038 0.02045336 4.098715e-34 0.2205858 0.3007222
Fisher Transform: TRUE
Confidence Interval: 95%
Number of Observations: 2009
>
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