R version 4.3.1 (2023-06-16 ucrt) -- "Beagle Scouts" Copyright (C) 2023 The R Foundation for Statistical Computing Platform: x86 64-w64-mingw32/x64 (64-bit)

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Type 'demo()' for some demos, 'help()' for on-line help, or 'help.start()' for an HTML browser interface to help. Type 'q()' to quit R.

[Previously saved workspace restored]

```
> rm(list = ls())
> x0 <- c(2.140561697,1.059497736,1.400870473,1.059315165,1.044773009,1.264290916,1.066033039,0.3</p>
73062716, 0.501744821, 1.003908036, 1.006188275, 0.470038863, 0.59444668, 1.290377898, 1.364667829, 0.677
289123,0.363189922,1.072725145,1.370685945,0.872393944,0.362506779,1.336293437,2.109772199,2.0169
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687406,0.690129627,0.435335418,0.538317292,0.550314504,0.729546736,0.605477159,1.237483941,1.1920
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95,1.027406983,0.932890573,0.752548098,0.781365814,1.282417412,1.336954434,1.086671491,1.58372577
7,1.482059516,1.361262218,2.295892805,2.336901566,1.626887361,1.578137637,1.450142599,1.76330131)
> x1 <- c(2.018663981,1.999996941,1.744490887,1.667490165,1.400862504,2.025163446,1.899351552,0.7</p>
64159104,0.652482504,0.916139968,0.686358673,0.90260944,0.923528654,0.9019694,1.098320541,0.60520
3835,0.762932387,0.792391808,0.773136182,0.937701116,0.793068799,0.882351124,0.976912798,0.864572
34,1.063448503,0.533679567,0.471849129,1.024949514,0.767039914,0.480154118,0.677225016,0.85744451
6,1.322991541,1.023145709,0.783287633,0.303435841,0.178571794,0.738529579,0.837370895,0.708285141
,0.630846639,0.67621124,0.466781794,0.746243275,1.301539386,1.002544099,0.805157905,1.329401535,1
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9996, 0.633682648, 0.514226343, 0.930193546, 1.2873872, 1.794320148, 2.016947854, 1.2349026, 0.680633368,
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```

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28139291,12.19005625,8.499737098,8.693715237,10.71927558,9.616916812,9.676434631,9.881671935,10.3 9051115,10.63337933,10.09132595,10.20025091,11.2114579,11.56971466,10.37212853,10.88759623,13.058 79262,12.57868136,11.00879536,12.8174773,13.37690405,12.29448547,12.07084683,12.18379108,12.23698 587,12.24198597,11.54955688,11.65199956,11.64120558,10.56788492,9.957343032,10.59262397,10.578772 5,9.443628349,8.520502425,8.356403918,7.933371651,7.655175708,7.114709879,6.411794292,5.935772002 ,5.264913035,4.548242501,4.124811058,3.498874304,2.270201029,1.42358902,1.063765827,0.795668935,0 .802832227, 0.587491136, 0.909747015, 1.162055636, 0.947725714, 0.686921259, 1.676442246, 2.09461138, 0.947125, 0.81393575,1.414334533,2.88695077,2.611623054,1.717761246,0.826947178,2.072375631,2.786070724,1.568 545654,0.648159274,1.821246633,2.227302547,1.485233141,1.286437996,1.763034851,1.531118996,0.9904 55514,1.220568124,1.67244677,1.439399154,1.031442548,1.071030897,1.385633185,1.319615642,1.584098 511,1.160565201,1.150960767,1.156827706,1.012403778,1.033661837,1.357332251,1.349155641,1.0691825 7,1.208416788,1.492547645,1.425283104,1.585309429,2.297640546,2.521958113,1.088231116,2.236769262 ,5.539716806,3.457558474,4.795184442,4.979144431,4.642859891,2.027404409,1.116076937,1.203189377, 2.382347785,3.608802678,2.71943019,2.285955541,2.299837876,2.931637776,2.772118769,2.526205648,1. 551106638,1.773942115,2.646098335,2.743539061,2.48169223,2.278210643,2.390457226,2.35800824,2.295 450871,2.568069008,2.961220421,2.261519753,2.11708897,2.195931614,2.455146978,2.349679614,2.11404 3273,3.848730028,3.94796824,3.493859988,4.709760157,3.708585178,3.251890946,3.747726715,3.4749787 66,3.375517566,4.40515046,4.041115695,3.077778028,2.816854576,2.805171013,3.535335953,3.852705169 ,2.764057529,3.188217155,2.897727017,4.792338601,5.264745717,5.703062902,7.300009946,9.477088317, 10.46200439,13.14595665,14.86181144,12.79548859,12.57952795,8.077243858,13.04170582,16.76782269,1 6.33130491,19.60209799,23.45672231,24.67908864,23.97639112,25.68934611,28.51300516,24.92849213,23 .57427399,21.08715239,21.05922204,14.56624704,13.65823707,7.787706907,5.318271423,5.132308036,4.1 53937282,4.322147064,3.233576257,3.058710524,2.945691704,3.205824062,3.605523728,2.86216675,3.243 864781,3.613222374,3.556828179,3.534314597,3.530788387,3.554079455,4.036782619,2.763979684,2.5856 25332,1.795550861,1.48552703,2.11016433,2.111724901,1.143904524,1.299147996,1.836187432,1.6123380 15,1.734239537,1.961375881,1.635070514,1.568613935,2.527936131,2.604889385,2.1201701,2.542699054, 3.477568719,2.670541138,3.642490655,5.290285186,4.138407848,4.210506346,3.636858595,3.175074661,3 .596972919,3.708148196,2.584699641,3.024520778,3.639085689,3.530999659,2.797527369,3.812974774,4. 944281579, 4.434345161, 3.470773144, 4.545914381, 6.374769943, 5.738289472, 5.29524455, 5.994951417, 6.55 5903131,6.07060058,6.469209464,7.313687239,7.432805586,7.529862202,8.530632183,9.049556479,8.1253 27045,8.239208288,9.228284869,9.463037035,8.328382212,8.886811426,10.29288771,10.05149986,8.15598 2211,8.994081594,10.89325016,9.611781777,8.802574722,6.571198011,7.880717866,7.514596778,5.657154 933,3.389925468,4.352035944,5.034991216,3.472823627,1.525346488,0.757981316,1.406779727,1.0812927 26,0.649095872,1.198355323,1.499415111,1.340379418,0.893187989,1.278423895,1.334387353,1.39348445 7,1.244000331,1.227583929,1.38197805,1.681032703,2.187774347,1.578567194,1.735180057,1.765839536, 1.898468293, 1.332823134, 1.451257254, 1.552825913, 1.000296472, 0.5940375, 0.989730405, 1.377803789)> y1 <- c(0.803819766,0.395028741,0.452981303,0.561235148,0.936592234,1.367158686,1.017229473,0.5</p> 92968461,1.111499587,1.369705989,1.284588521,1.347722461,1.876878258,1.551077273,1.600325804,1.67 9432489,1.990267141,1.635222327,1.69607927,2.27315186,2.683340794,2.563652465,2.78676831,1.730288 152,1.708704913,1.597506924,1.701144809,1.996799001,1.474506736,1.611610738,1.08359707,0.61173434 1,0.810372952,1.270810611,0.719443484,0.598904793,0.450959114,0.556676803,1.422163386,0.756895111 ,0.899586192,1.118242974,1.746553598,1.273674811,0.83239322,1.029406883,0.692347813,0.628751313,0 .584689735,0.73688909,0.684824938,0.37737413,0.440582241,1.211767345,1.263814198,1.765737204,0.91 0096553,3.659040012,1.298354,2.17438625,2.429063196,1.230236321,0.633554341,1.179443496,1.1699050 44,0.689447671,0.651023522,0.503791493,0.29669562,0.857158831,0.786635714,1.01071026,1.280115748, 1.762959731,1.912436547,2.183250261,2.334027553,2.596249775,2.336812451,3.231447195,1.905275343,2 .683603426,2.871902901,2.296340183,2.309828081,0.828568075,1.119669138,1.608237034,1.566750438,0. 986513478,1.171137337,1.651967476,1.262281949,1.236931473,2.151485359,2.496622089,2.808738467,1.7 75625729,1.286928794,2.536152585,3.615225875,4.053873493,3.535879868,2.258154938,3.669009681,3.20 5715505,1.862697603,2.542508255,2.018631807,0.840261369,0.818684507,0.655326019,1.180200371,1.069 230728,0.838758165,1.106649396,1.385803024,1.726895741,1.469813747,1.566424275,1.911190561,1.8658 38414,2.523789748,0.724710852,1.275129071,1.480819914,1.540375246,1.709791259,3.147205465,3.54708 1893, 2.041533187, 1.273432317, 1.619344903, 1.943675712, 1.82501011, 2.595866831, 2.172180967, 1.8734338 69,1.956148772,1.964904444,1.706872967,1.459501473,1.619053672,1.562397481,1.454737269,1.35679249 ,0.68034712,0.529938297,0.659055461,0.568451577,0.223952773,0.62879918,0.426374602,0.738123674,1. 006368846,1.02010978,1.943973173,2.181809599,5.403819076) > y < - c(y0,y1)> cor.test(x, y,alternative = "two.sided", method = "spearman", exact=FALSE)

Spearman's rank correlation rho

```
data: x and y
S = 9828234, p-value < 2.2e-16
alternative hypothesis: true rho is not equal to 0
sample estimates:
     rho
0.3901953
> # ---- Confidence interval ----
> if(!"RVAideMemoire" %in% installed.packages()){install.packages("RVAideMemoire")}
> library(RVAideMemoire)
*** Package RVAideMemoire v 0.9-83-3 ***
> spearman.ci(x,y)
        Spearman's rank correlation
data: x and y
1000 replicates
95 percent confidence interval:
0.3036685 0.4648156
sample estimates:
     rho
0.3901953
```