```
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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  Natural language support but running in an English locale

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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(59,72,62,79,82,29,24,25,14,39,41,4,39,56,5,20,58,39,0,31,57,23,0,54,57,28,28,78,71,89,2
6,49,72,67,50,14,46,61,17,21,50,22,1,31,35,2,21,56,26,5,51,68,3,6,30,32,0,8,27,0,0,0,2,5,1,12,7,2
4,17,76,44,73,40,11,53,47,4,10,65,34,2,54,55,10,8,48,52,1,2,46,28,0,0,52,18,0,7,54,18,0,40,72,45,
52,3,0,79,81,22,58,25,59,20,8,49,42,8,13,42,40,9,39,76,25,86,49,33,66,39,1,44,60,50,19,30,44,21,7
6,80,82,39,36,82,26,25,4,12,11,0,7,3,19,43,1,21,53,28,0,49,55,4,32,43,37,78,84,75,2,52,64,32,43,5
5,65,15,42,58,28,1,40,47,4,10,68,52,1,25,66,17,10,61,31,5,15,44,0,2,28,29,7,18,0,3,38,8,15,60,21,
60,56,41,76,78,20,51,61,18,11,37,52,0,7,57,4,0,20,49,0,1,40,37,0,9,44,55,20,0,3,50,14,5,46,59,39,
6,68,46,57,9,57,67,9,12,48,15,1,37,5,1,10,14,4,0,37,13,6,7,6,10,17,1,1,5,2,6,2,0,13,2,0,18,68,49,
27,55,5,39,44,51,6,0,9,12,0,3,2,11,0,6,5)
> x1 <- c(29,0,8,0,0,0,0,0,0,0,0,4,1,3,1,17,4,39,76,38,93,24,56,73,50,18,28,41,34,1,17,64,18,0,8,
37,2,0,42,8,2,16,7,30,55,55,12,7,16,55,5,1,5,12,0,0,36,42,10,73,6,39,18,40,3,2,5,4,1,30,24,1,1,26
,41,1,10,13,17,2,5,17,3,4,6,7,1,4,1,0,0,0,6,2,1,13,37,45)
> x <- c(x0,x1)
> y0 <- c(0.7545,0.66425,0.5295,0.9925,0.8965,0.34,0.42125,0.428,0.0295,0.058,0.24025,0.00025,0.0
005,0.00075,0,0,0.00225,0.001,0,0.0335,0.3845,0.0915,0.0025,0.97325,0.958,0.56625,0.7915,0.72225,
0.98575,0.29325,0.6115,0.05125,0.0895,0.95,0.97525,0.00175,0.01175,0.91675,0.6285,0,0.01825,0.000
5,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0.00625,0,0,0.115,0.49925,0,0,0.19175,0.33275,0.5
1125,0.955,0.08275,0.17,0.84725,0.99325,0.00025,0.03475,0.59575,0.4295,0,0.01475,0.05775,0.01275,
0,0.00025,0,0,0,0.002,0.00025,0,0.00825,0.2465,0.01975,0.00075,0.69625,0.93525,0.9245,0.58375,0.7
17,0.42325,0.60225,0.968,0.49625,0.39175,0.8625,0.8135,0.05025,0.01875,0.67125,0.17225,0,0,0.0062
5,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0.014,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0.001,0.288,0.0005,0,
0.874,0.826,0.00025,0.0055,0.96,0.17175,0.0555,0.0115,0.019,0,0,0,0,0,0,0,0,0,0.0015,0,0,0.058,0.
0105,0,0.01525,0.81125,0.4345,0.001,0.22525,0.93875,0.11875,0.06,0.94775,0.10675,0.0005,0.03225,0
.00525,0,0,0,0.04275,0,0.00225,0,0,0.00025,0.032,0.00225,0.00125,0.0115,0.227,0.4545,0.72325,0.93
2,0.6155,0.0295,0.55075,0.778,0.166,0.0095,0.1925,0.7515,0.00125,0.0005,0.0745,0.0905,0,0,0.014,0
,0,0,0,0,0.00075,0.0005,0.00125,0.00025,0.047,0.10125,0.04675,0.00175,0.98975,0.95825,0.9465,0.
60775,0.99,0.66125,0.8605,0.90725,0.99975,0.6885,0.00025,0.16775,0.71425,0.12775,0.0005,0.64075,0
.87975,0.01475,0.00875,0.927,0.68725,0,0.45225,0.7405,0.0955,0.00825,0.00275,0,0.0005,0.00425,0.0
025,0,0.0025,0.13675,0,0,0.007,0.05375,0,0,0.03825,0.28075,0.04075,0,0,0,0,0.00025,0,0,0,0,0,0,0,
0.003,0,0,0)
> y1 <- c(0.0005,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0.061,0,0,0.0005,0.00025,0.15175,0.1365,0.7725,0.978
75,0.5015,0.01675,0.02125,0.1655,0.00025,0,0.00025,0,0,0,0,0,0,0,0,0,0,0,0,0.01275,0.02475,0.0415
,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0.0005,0.0115,0,0,0.00025,0,0,0.18075,0.14275,0,0.004,0.
307,0.00075,0,0,0.00375,0,0,0,0,0,0,0,0,0,0,0,0.01625,0.008,0.052,0.322,0.89775)
> 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 = 5512475, p-value < 2.2e-16
alternative hypothesis: true rho is not equal to 0
sample estimates:
     rho
0.475372

> # ---- 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:
 0.3942948 0.5515434
sample estimates:
     rho
0.475372

>
```