

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 'q()' to quit R.

[Previously saved workspace restored]

```
> rm(list = ls())
> x0 <- c(103.4,172.9,103.8,174,196.9,39.1,22.3,52.7,14.8,73.5,80.5,2.2,53.3,84.9,4.9,25.3,85.2,5
4.2,0,46.7,83.6,42.9,0,129.1,78.9,52.6,63.7,103.1,160,230.6,41.7,58.8,171,165.9,101.8,17.2,86.6,1
38.8,33.2,21.7,99.6,28.7,0.6,51.3,64.9,2.4,36.5,139.1,44.8,5.2,97.6,121.8,2.4,4.6,30.8,44.3,0,8,3
4.7,0,0,0,0.6,3.5,0.4,20.4,6.3,19.5,25.3,130,56.2,156.4,41.5,11.3,42.2,100.8,6.8,7.2,123.7,83.5,1
.4,77,80.9,18.8,12.4,89.2,72.1,1.2,3.2,64.9,40.8,0,0,68.4,26,0,6.8,75.7,23.6,0,50.7,102.8,60.2,98
.2,4.1,0,178.7,200,22.7,74.7,27.2,63.8,31.7,4.6,100.8,71.4,11.2,20.4,73.6,102.2,14.8,63.9,142.1,2
6.5,124.8,76.4,56.5,100.3,78.9,2,55.3,107.5,91,31.9,59.4,77.1,35.1,137,113.2,112,55.7,70,135.5,21
.5,39.3,4.4,7.6,14,0,6.5,2.6,27,93.2,0.6,36.2,71,62.2,0,112.8,77.2,4.3,26,73.7,67.6,176,169.8,160
.4,1.4,105,69,53.9,109.4,105.3,138.3,29.5,68.9,76.8,50.9,0,65.3,51.5,4.8,10.4,174.8,102.8,0.2,25,
101,19.8,7.3,157.1,72.4,2.6,16.8,64,0,0.6,46.5,66.7,9.2,23.9,0,1.8,73.2,12.4,19.8,109.4,32.8,112.
7,95.2,71.1,66.9,118.3,32.3,42.2,58.3,35.5,18.4,37.9,98.2,0,7.2,82.5,5.1,0,23.1,71,0,0,72.2,51.9,
0,6,53.9,72.2,24.4,0,3.6,99.8,22.7,12.4,102,107.6,54.4,5.4,169.7,88.2,89.5,10.2,139.9,103,14.5,17
.8,39.9,12.7,0.4,64.7,4.6,0.2,14.5,20.8,1.6,0,61.1,7.3,6,7,4.6,7.4,16.2,0.8,0.8,5.2,0.8,3.4,1.8,0
,20.2,0.6,0,23.7,123.1,57.3,41.9,46.4,5.4,59.9,92.4,130.1,8.4,0,16.2,25.1,0,3.7,1.5,12.4,0,4.4,4.
2)
> x1 <- c(35.5,0.2,9.2,0,0,0,0,0,0,0,2.6,0.4,1.4,0.4,29.4,2.5,45.5,138.2,75.3,181.1,36.9,89.1,1
60.5,38.3,36.5,42.3,69,53.6,0,17.6,109.9,25.3,0,9.2,39.3,1.2,0,75.1,2.6,1.6,13.4,6.7,39.9,58.5,11
0.9,12.5,3.1,26.9,74.6,6,0,7.2,18.2,0,0,50.6,45.5,13.3,61.6,7.6,48.5,22.2,58.5,2.7,2.8,8.7,4.1,0.
2,48.4,19.6,1.2,1,53.9,68.1,0,13,28.9,28.1,1,6.4,20.6,1.8,3.8,5.1,12.8,0.2,4,0,0,0,0,2.6,2,0.8,23
.2,66,75.4)
> x <- c(x0,x1)
> y0 <- c(0.965,0.753,0.06375,0.6605,0.99925,0.92,0.213,0.98375,0.4155,0.01075,0.035,0.90375,0.21
85,0.00175,0.00075,0.24675,0.01625,0.00525,0.011,0.2355,0.0735,0.03625,0.01225,0.77425,0.7395,0.3
69,0.98975,0.99975,0.99825,0.99975,0.997,0.99925,0.9995,0.9445,0.96925,0.35925,0.99725,0.508,0.22
75,0.69525,0.3815,0,0.19125,0.95675,0.016,0.464,0.77375,0.99775,0.2385,0.76225,0.8525,0.96825,0.4
3625,0.02625,0.7445,0.99175,0.0095,0.00025,0.98225,0.90325,0.84925,0.00025,0.718,0.988,0.9425,0.0
595,0.2,0.9715,0.344,0.94225,0.99975,0.99975,0.365,0.99975,0.9995,0.9995,0.9945,0.3015,0.60025,0.
94375,0.00275,0.0795,0.09,0.3375,0.95925,0.389,0.0195,0.99125,0.8685,0.0275,0.0145,0.0155,0.01725
,0.01575,0.03525,0.0475,0.00475,0.057,0.04975,0.01075,0.918,0.90675,0.878,0.99775,0.866,0.963,0.9
9975,0.99975,0.99975,0.99675,0.434,0.349,0.70225,0.505,0.15325,0.1025,0.74825,0.84225,0.02125,0.6
11,0.9705,0.341,0.123,0.18975,0.9965,0.91575,0.99975,0.91675,0.9785,0.007,0.9475,0.99625,0.9995,0.
9575,0.9775,0.99975,0.976,0.7895,0.99975,0.997,0.99975,0.99975,0.99975,0.99125,0.88025,0.2075,0.
00325,0.44725,0.0705,0.92375,0.01025,0.03275,0.92525,0.9535,0.01775,0.06775,0.98675,0.00025,0.641
5,0.21725,0.031,0.33225,0.99525,0.99,0.99975,0.99975,0.99975,0.318,0.99975,0.89225,0.0625,0.9945,
0.99975,0.99475,0.5935,0.99975,0.8285,0.80875,0.99375,0.99975,0.07475,0.04425,0.99875,0.9995,0.16
25,0.69925,0.9845,0.803,0.28325,0.989,0.9145,0.11175,0.7945,0.01025,0.00175,0.19425,0.773,0.01225
,0.0285,0.25825,0.37625,0.0095,0.23725,0.99725,0.46275,0.416,0.9995,0.99975,0.99975,0.99975,0.896
5,0.93725,0.997,0.916,0.198,0.8295,0.7755,0.24425,0.0815,0.68975,0.03325,0.008,0.0175,0.05475,0.0
3825,0.00125,0.02125,0.05625,0.00775,0.0005,0.01825,0.9995,0.8415,0.00125,0.00575,0.937,0.98125,0.
00325,0.00425,0.489,0.27625,0.31475,0.15925,0.54575,0.93075,0.9995,0.9985,0.99875,0.11825,0.9047
5,0.9985,0.38725,0.01025,0.82125,0.49325,0.00025,0.42475,0.99525,0.03925,0.00175,0.483,0.512,0.00
5,0.044,0.153,0.52175,0.6185,0.99575,0.99975,0.9995,0.89125,0.25025,0.95275,0.953,0.9215,0.18425,
0.9845,0.99875,0.9,0.05925,0.99675,0.99975,0.9995,0.9995,0.99975,0.929,0.999,0.99975,0.99975,0.85
975,0.57525,0.9995,0.99975,0.00525,0.83975,0.9995,0.458,0.20825,0.9985,0.9995)
> y1 <- c(0.657,0.98525,0.99925,0.01475,0.02975,0.19325,0.707,0,0.0375,0.0575,0.3125,0.57525,0.00
725,0.26325,0.55825,0.9915,0.964,0.99975,0.99975,0.99975,0.99975,0.992,0.9995,0.86825,0.22925,0.9
9075,0.409,0.04475,0.98825,0.70475,0.01675,0.378,0.89775,0.00025,0.123,0.02,0,0.93525,0.901,0.710
75,0.9845,0.9925,0.99975,0.99975,0.99975,0.97775,0.999,0.93275,0.97175,0.71125,0.94,0.20525,0.520
```

```
5,0.019,0.0035,0.05325,0.996,0.863,0.994,0.99575,0.99325,0.99975,0.99,0.99725,0.9665,0.091,0.478,
0.45975,0.1705,0.71925,0.40925,0.17175,0.437,0.36675,0.027,0.0025,0.94525,0.162,0.0015,0.977,0.96
95,0.0015,0.95825,0.999,0.2085,0.81225,0.9995,0.7835,0.14725,0.955,0.2685,0.00675,0.36975,0.1325,
0.08825,0.975,0.99975,0.9915)
> 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 = 6817446, p-value = 5.394e-13
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
0.3511767
```

```
> # ---- 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:
 0.2586908 0.4329943
sample estimates:
      rho
0.3511767
```

```
>
```