

```
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)
```

```
R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.
```

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

```
R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.
```

```
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())
> x <- c(-109.52,-110.52,-112.37,-113.99,-116.49,-218.91,-212.94,-225.19,-223.04,-226.74,-98.61,-
97.74,-100.56,-102.26,-104.63,-208.62,-222.28,-206.54,-200.39,-212.45,-107.71,-106.67,-107.05,-10
5.5,-107.5,-223.05,-214.51,-216.71,-223.37,-216.01,-88.76,-91.2,-93.92,-93.46,-95.66,-171.51,-182
.38,-195.17,-194.16,-201.55)
> y <- c(-17.5,-17,-17.5,-17.2,-17.1,-18.8,-18.8,-19.1,-19.3,-19.4,-17.8,-17.8,-17.8,-17.7,-17.9,
-20.9,-20.9,-20.9,-20.7,-20.8,-16.3,-15.6,-15.7,-15.8,-15.6,-17.9,-17.8,-17.9,-18,-17.6,-15.4,-15
.3,-15.3,-15.5,-15.8,-17.7,-17.6,-17.6,-17.6,-17.5)
> cor.test(x, y, alternative = "two.sided", method = "spearman", exact=FALSE )
```

```
Spearman's rank correlation rho
```

```
data: x and y
S = 2875.5, p-value = 8.889e-08
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
0.7302553
```

```
> # ---- 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:
 0.5424494 0.8481117
sample estimates:
      rho
0.7302553
```

```
>
```