```
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())
> x <- c(-226.74,-225.19,-223.37,-223.05,-223.04,-222.28,-218.91,-216.71,-216.01,-214.51,-212.94,
-212.45,-208.62,-206.54,-201.55,-200.39,-195.17,-194.16,-182.38,-171.51,-116.49,-113.99,-112.37,-
110.52,-109.52,-107.71,-107.5,-107.05,-106.67,-105.5,-104.63,-102.26,-100.56,-98.61,-97.74,-95.66
,-93.92,-93.46,-91.2,-88.76,-76.17,-70.26,-79.16,-75.1,-75.62,-53.39,-65.75,-45.79,-61.79,-34.85,
-36.08,-31.14,-34.93,-38.46,-57.29,-48.4,-59.43,-54.53,-51.34,-108.78,-108.02,-110.19,-109.69,-11
7.09,-101.07,-100.69,-101.44,-103.12,-103.59,-102.64,-105.78,-100.46,-101.43,-105.72,-95.55,-98.2
8,-91.26,-94.99,-95.3,-19.36,-17.71,-18.49,-20.69,-19.31,-43.03,-43.51,-41.55,-33.43,-41.78,-93.7
3,-118.68,-126.69,-145.02,-118.25,-81.98,-83.32,-71.87,-80.41,-72.93)
> y <- c(-19.4,-19.1,-18,-17.9,-19.3,-20.9,-18.8,-17.9,-17.6,-17.8,-18.8,-20.8,-20.9,-20.9,-17.5,
-20.7,-17.6,-17.6,-17.6,-17.7,-17.1,-17.2,-17.5,-17,-17.5,-16.3,-15.6,-15.7,-15.6,-15.8,-17.9,-17
.7,-17.8,-17.8,-17.8,-15.8,-15.3,-15.5,-15.3,-15.4,-14.4,-12.9,-13.9,-13.9,-14.4,-14.6,-14.4,-12.
9,-14.4,-15.7,-15.6,-16.3,-15.7,-15.7,-15.9,-15.7,-15.9,-16.2,-16.4,-18.1,-18.4,-18.2,-17.6,-18.4
,-17.7,-17.8,-17.7,-18.2,-17.8,-17.1,-17.1,-17,-16.8,-16.9,-16.8,-16.8,-17.2,-17,-16.8,-13.1,-13.
6,-13.9,-13.2,-13.7,-13.3,-13.3,-13.8,-13.1,-13.1,-15.6,-15.5,-15.3,-15.8,-15.2,-15.1,-15.6,-15.1
,-15.2,-15.6)
> cor.test(x, y,alternative = "two.sided", method = "spearman", exact=FALSE )

        Spearman's rank correlation rho

data:  x and y
S = 35889, p-value < 2.2e-16
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
0.7780505

> # ---- 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:
 0.6725015 0.8500867
sample estimates:
      rho
0.7780505

> # Creating the plot
> plot(x, y, pch = 19, col = "lightblue")
>
> # Regression line
> abline(lm(y ~ x), col = "red", lwd = 3)
```

>