Calculate the correlation between severity of PTSD symptoms and relationship quality.

Symptom Relationship

severity (X) quality (Y)

10 15

15 6

12 15

19 6

8 12

15 8

16 7

18 10

22 9

Explain what the sign of your correlation means about your variables.

Convert your correlation to variance and explain what it means.

Calculate the least squares regression line using these same variables.

Predict the relationship quality of someone with a symptom severity of 20.

The Standard Error of the Estimate for this line is 2.90, explain what this means.

Describe what your slope and intercept values mean about these variables.

Answers:

Correlation = -.64

The sign means that in general, lower relationship quality is found with more symptom severity.

r2 = .41, so 41% of differences in relationship quality can be explained by differences in PTSD symptom severity. (or the other way around)

Y = -.51X + 17.37

Y’20 = -.51(20) + 17.37 = 7.17

On average, predictions made using this line are 2.90 points off on the relationship quality scale.

Slope = -.51, for each point on symptom severity, relationship quality decreases by .51 points; Intercept = 17.73, with no PTSD symptoms, relationship quality is 17.73.