

The *Scale for Understanding of Statistics* (SUS) consists of two subtests: *Understanding of Concepts*, which has mean $\mu_1 = 50.2$ and standard deviation $\sigma_1 = 7.5$, and *Statistical Computation*, which has mean $\mu_2 = 48.1$ and standard deviation $\sigma_2 = 7.1$. In addition, the correlation between the two subtests is $r = 0.28$.

- Compute the mean composite score for the SUS.
- Compute the standard deviation for the composite SUS.
- Suppose you score 94 on the composite SUS. What is your percentile rank?

Four students took an exam, consisting of three short answer questions scored on a continuous scale of 0-10. The raw scores are below.

	Q1	Q2	Q3
s1	9	10	6
s2	7	5	6
s3	5	8	4
s4	3	5	4

- Calculate the mean and standard deviation for each item.
- Compute the pairwise correlations between each item.
- Compute the variance-covariance matrix for the three items.
- Compute the mean and standard deviation of the composite test score.

This semester, we will work with a scale to measure statistics anxiety – it is called the *SAQ-8* – i.e., an 8-item "statistics anxiety questionnaire". Each item is Likert scaled with 1 = strongly disagree and 5 = strongly agree.

Items:

1. Statistics makes me cry
2. My friends will think I'm stupid for not being able to use statistical software
3. Standard deviations excite me
4. I dream that Pearson is attacking me with correlation coefficients
5. I don't understand statistics
6. I have little experience with computers
7. All computers hate me
8. I have never been good at mathematics

On Canvas, you can download a file called **SAQ8.csv**. Let's open that file in JASP.

One subscale called *Computer Self Concept* is a composite of items 2, 6, and 7. Using JASP, compute the mean and standard deviation of this composite subscale.