Partial Autocorrelation

2/2 points (100.00%)

Quiz, 2 questions

Congratulations! You passed!

Next Item

1 / 1 points

1.

Partial Autocorrelation

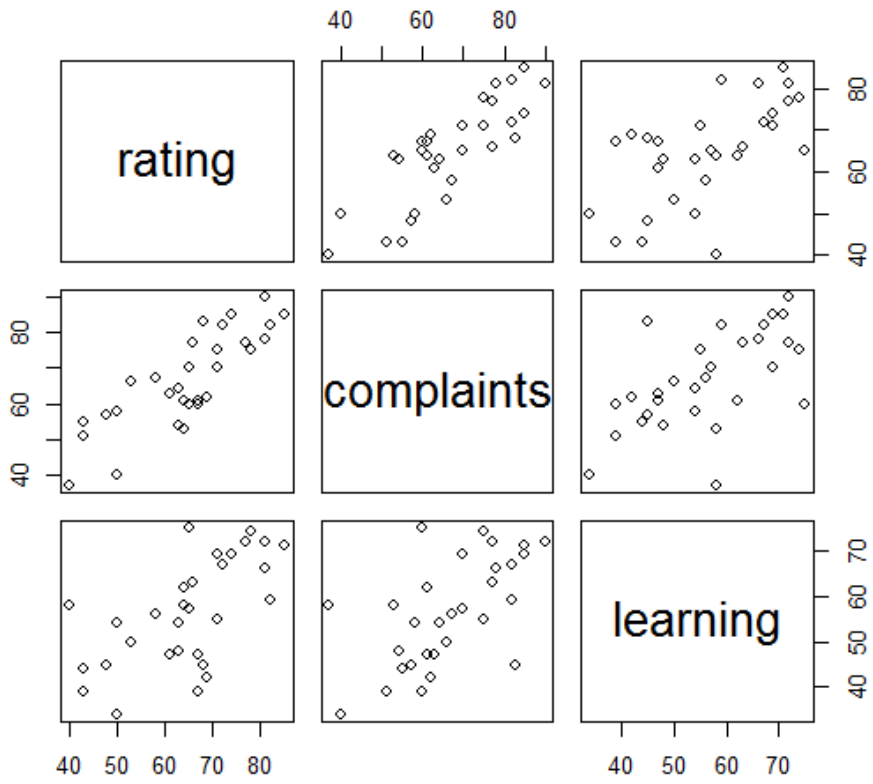
Quiz, 2 questions

2/2 points (100.00%)

Let's look at the Chatterjee–Price Attitude Data. They surveyed employees on a number of topics in a large organization.

We have a summary of the survey process available, and are presented with a a *proportion of favorable* responses for these topics in 30 departments.

Let's look at the overall favorability rating (labeled as "rating"), together with "Handling of employee complaints" (labeled as "complaints") and the "Opportunity to learn" (labelled as "learning". Here is a pairs plot of these three variables.



Run the "cor()" command to find the pairwise correlations.

```
1  attach(attitude);
2  rcl = cbind(rating, complaints, learning);
3  cor(rcl)
4
```

Run

Reset

Which two variables have the largest correlation?

- Rating and Learning
- Rating and Complaints

Partial Autocorrelation

Quiz, 2 questions

2/2 points (100.00%)

Correct
Yes, this is the highest. correlation among these three variables.

Learning and Complaints

1 / 1 points

2.
We partial out the effect of "learning" on the relationship between "rating" and "complaints". First, we remove the linear parts as we did during the lecture. After that, write a line of code to give you the partial correlation and run it. You may round your answer to 2 places after the decimal.

```
1  attach(attitude);
2  rating.hat = predict( lm( rating ~ learning) )
3  complaints.hat = predict( lm( complaints~learning) )
4  #### place your code on the next line ####
5  cor((rating-rating.hat),(complaints-complaints.hat))
6
```

Run

Reset

.72

Correct Response
Terrific! We find the correlation of rating and complaints after removing the linear dependency on learning.