

STA 3180 Statistical Modelling: Factor Analysis

Extra Practice Problems: Factor Analysis

1. How would you go about solving a problem involving factor analysis?

Factor analysis is a statistical technique used to identify the underlying structure of a set of variables. To solve a problem involving factor analysis, one would first need to identify the variables that are being studied and determine the relationships between them. Then, the data should be analyzed using factor analysis techniques such as principal component analysis or exploratory factor analysis. The results of the analysis can then be used to identify the underlying structure of the variables and draw conclusions about the relationships between them.

2. [INCORRECT] What is the correlation between two variables X and Y if the factor loading for X is 0.5 and the factor loading for Y is 0.7?

The factor loading for a variable is not related to the correlation between two variables. The correlation between two variables is a measure of the linear relationship between them, while the factor loading is a measure of how much of the variance in a variable is explained by a particular factor. Therefore, the correlation between two variables cannot be determined from the factor loadings.