

Badji Mokhtar University, Annaba
Faculty of Economic, Commercial and Management Sciences
Department of Financial and Accounting Science.
Micro-Interrogation in data analysis

Exercise:

The following table contains the scores of six students in three subjects (Data Analysis, Microeconomics, Mathematics).

	Data Analysis	Microeconomics	Mathematics
Saber	8	1	0
Farid	4	6	5
Ahlem	6	8	7
Mohamed	10	4	7
Sihem	8	2	5
Youssef	0	3	6

1. Form the data matrix and calculate the centered matrix and the norm matrix.
2. Calculate the variance-covariance matrix Σ and the correlation matrix R.
3. Find the eigenvalues and eigenvectors.
4. Form a table of eigenvalues and determine the reliability of the main components obtained.
5. Calculate the main components for the individuals on the axes.