

Exercises Sheet #6

Exercise 1. PCA

Given the following data, use PCA to reduce the number of dimensions from 2 to 1.

X1	X2
4	11
8	4
13	5
7	14

- 1) Compute the mean of X1 and X2.
- 2) Compute the covariance matrix.
- 3) Compute the Eigen values, the Eigen vectors and the normalized Eigen vectors.
- 4) Derive the new dataset.