Quiz - Week #7

Due No due date **Points** 20 **Questions** 7 **Time Limit** None

Instructions

The quiz is open book with no time limit. It is recommended that you use Excel to perform the computations necessary to answer the questions in this quiz.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	10 minutes	6 out of 20

Score for this quiz: **6** out of 20
Submitted Feb 24 at 9:24pm
This attempt took 10 minutes.

Question 1

3 / 3 pts

Your PCA analysis yields the eigenvalues: 9.3, 7.8, 6.4, 3.2, 2.7, 1.2, 0.7, 0.5, 0.4, 0.3.

How many principal components should be kept using the 80% rule?

Correct!

- (●) 4
- ( ) 2
- ( ) 3
- ( ) 5

Question 2

0 / 3 pts

Your PCA analysis yields the eigenvalues: 9.3, 7.8, 6.4, 3.2, 2.7, 1.2, 0.7, 0.5, 0.4, 0.3.

How many principal components should be kept using the average eigenvalue rule?

orrect Answer
- 3

- 4

'ou Answered
- 5

- 2

Question 3

0 / 3 pts

Your PCA analysis yields the eigenvalues: 9.3, 7.8, 6.4, 3.2, 2.7, 1.2, 0.7, 0.5, 0.4, 0.3.

How many principal components should be kept using the scree plot rule?

orrect Answer
- 7

- 5

'ou Answered
- 6

- Can not be determined from the plot.

Question 4

3 / 3 pts

Your PCA analysis yields the eigenvalues: 9.3, 7.8, 6.4, 3.2, 2.7, 1.2, 0.7, 0.5, 0.4, 0.3.

How many principal components should be kept using the 90% rule?

Correct!

- (•) 5
- ( ) 6
- ( ) 7
- ( ) 4

Question 5

0 / 3 pts

Your PCA analysis yields the eigenvalues: 9.3, 7.8, 6.4, 3.2, 2.7, 1.2, 0.7, 0.5, 0.4, 0.3.

How many principal components should be kept using the Kaiser rule?

orrect Answer

- ( ) 6

'ou Answered

- (•) 5
- ( ) 7
- ( ) 4

Question 6

0 / 3 pts

Your PCA analysis yields the eigenvalues: 9.3, 7.8, 6.4, 3.2, 2.7, 1.2, 0.7, 0.5, 0.4, 0.3.

How many principal components should be kept using the log eigenvalue plot rule?

orrect Answer

- ( ) Cannot be determined

'ou Answered

- (•) 5

The log eigenvalue plot for this set of eigenvalues does not yield a recommendation other than maybe all of the principal components.

4

6

Question 7

0 / 2 pts

Your principal components analysis yields the first eigenvector

e1 = (0.3,1.2,0.45).

Consider the observation (X1,X2,X3) = (1.1,2.2,3.3).

Compute Z1.

orrect Answer

4.45

'ou Answered

3.21

0.3*1.1 + 1.2*2.2 + 0.45*3.3 = 4.45

5.44

6.34

Quiz Score: **6** out of 20