

# Visualization and dimension reduction

**5/5 points (100%)**

Quiz, 5 questions

**✓ Congratulations! You passed!**[Next Item](#)1 / 1  
points

1.

Among dimension reduction, what technique exist to visualize more than three dimensions in a single plot? (Select all that apply)



Color coding for discrete dimensions

**Correct**

Correct



Using different symbols apart from simple points for discrete dimensions

**Correct**

Correct



Sum Kurtosis and Skewness together for each row

**Un-selected is correct**

Calculate the Standard Deviation of each row

**Un-selected is correct**

Apply Fast Fourier Transformation

**Un-selected is correct**



Add multiple lines to a run chart

## Visualization and dimension reduction

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**Correct**

Correct

1 / 1  
points

2.

What properties are true about PCA for dimension reduction? (Select all that apply)



PCA removes the dimensions with the highest correlation because their information content is lowest

**Un-selected is correct**

PCA is a linear transformation, this means most of the original properties of your data are preserved

**Correct**

Correct



PCA transforms your dataset so that the first k dimensions have the lowest correlation among each other

**Correct**

Correct



PCA is a non-linear transformation, this means most of the original properties of your data set are lost

**Un-selected is correct**1 / 1  
points

3.

Which of the following statements is true about information loss using PCA?

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☐ PCA dimensionality reduction is lossless

☒ PCA dimensionality reduction is lossy

**Correct**

Correct



1 / 1  
points

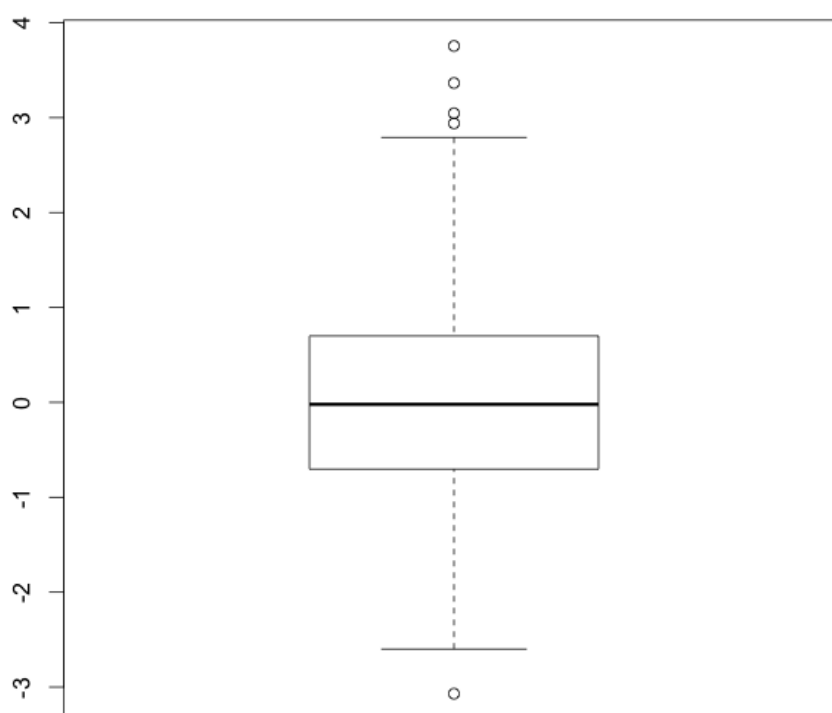
4.

How many outliers are present in this dataset?

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5

**Correct Response**

Correct



1 / 1  
points

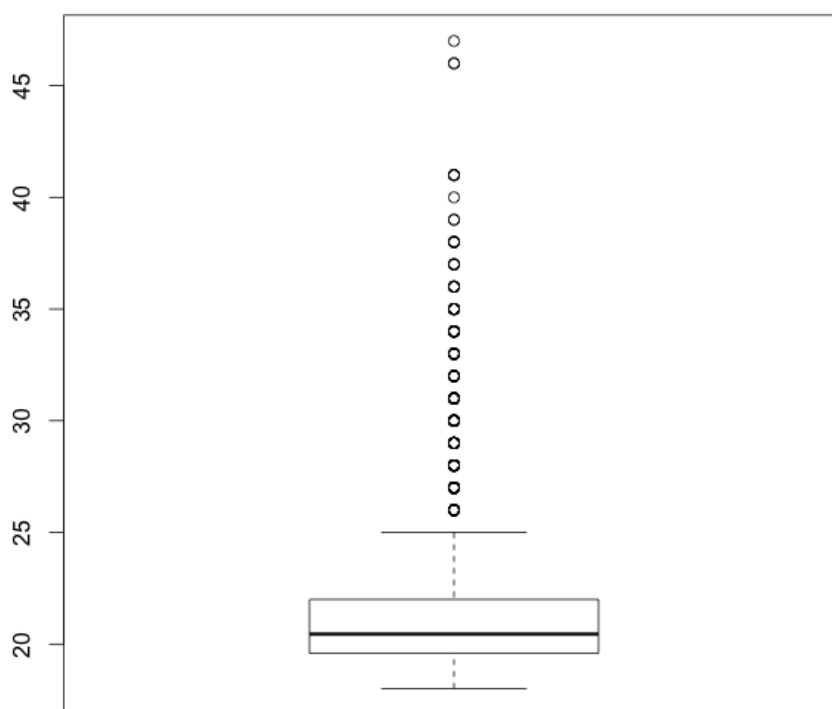
5.

Which statements are true about this plot? (select all that apply)

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☒ This is a box plot



**Correct**

Correct

☐ This is a star ship of space invaders



**Un-selected is correct**

☐ There are more than 15 outliers present



**Correct**

Correct

