Practice Quiz - PCA

Pregunta 1:

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

- [x] Color coding for discrete dimensions

  ✓ **Correcto**
  Correct

- [x] Using different symbols apart from simple points for discrete dimensions

  ✓ **Correcto**
  Correct

- [ ] Sum Kurtosis and Skewness together for each row
- [ ] Calculate the Standard Deviation of each row
- [ ] Apply Fast Fourier Transformation
- [x] Add multiple lines to a run chart

  ✓ **Correcto**
  Correct

Pregunta 2:

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

- [ ] PCA simply removes the columns with the highest correlation because their information content is lowest
- [x] PCA is a linear transformation, this means most of the original propertes of your data are preserved

  ✓ **Correcto**
  Correct

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

  ✓ **Correcto**
  Correct

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

Pregunta 3:

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

- ( ) PCA dimensionality reduction is lossless
- (•) PCA dimensionality reduction is lossy

  ✓ **Correcto**
  Correct