

1. What is the implication of a small standard deviation of the clusters?

1 / 1 point

- ☐ A small standard deviation of the clusters defines the size of the clusters.
- ☒ The standard deviation of the cluster defines how tightly around each one of the centroids are. With a small standard deviation, the points will be closer to the centroids.
- ☐ The standard deviation of the cluster defines how tightly around each one of the centroids are. With a small standard deviation, we can't find any centroids.
- ☐ A small standard deviation of the clusters means that the centroids are not close enough to each other.

✔ **Correct**
Correct! You can find more information in the lesson *K-means Initialization lesson*.

2. After we plot our elbow and we find the inflection point, what does that point indicate to us?

1 point

- ☐ The ideal number of clusters.
- ☒ The data points we need to form a cluster
- ☐ How we can reduce our number of clusters.
- ☐ Whether we need to remove outliers.

✘ **Incorrect**
Incorrect. Please review the lesson *K-means Initialization lesson*.

3. What is one of the most suitable ways to choose K when the number of clusters is unclear?

1 / 1 point

- ☐ You can start by choosing a random number of clusters.
- ☒ By evaluating Clustering performance such as Inertia and Distortion.
- ☐ By increasing the number of clusters calculating the square root.
- ☐ You can start by using a k nearest neighbor method.

✔ **Correct**
Correct! Both are measures of entropy part cluster. You can find more information in the Selecting the Right Number of Clusters in K-Means lesson.

4. Which statement describes correctly the use of distortion and inertia?

1 / 1 point

- ☐ When the sum of the points equals a prime number, use inertia, and when the sum of the points equals a pair number, use distortion.
- ☐ When we can calculate a number of clusters higher than 10, we use distortion, when we calculate a number of clusters smaller than 10, we use inertia.
- ☐ When outliers are a concern use inertia, otherwise use distortion.
- ☒ When the similarity of the points in the cluster are more important, you should use distortion, and if you are more concerned that clusters have similar numbers of points, then you should use inertia.

✔ **Correct**
Correct! This statement describes best how we can choose between distortion and inertia.

5. Which method is commonly used to select the right number of clusters?

1 / 1 point

- ☒ The elbow method.
- ☐ The ROC curve.
- ☐ The perfect Square Method
- ☐ The Sum of Square Method

✔ **Correct**
Correct! The method consists of plotting the interpreted variation as a function of the number of clusters, and selecting the elbow of the curve as the number of clusters to use.