

✔ **Congratulations! You passed!**

Grade received 100% To pass 80% or higher

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1. In a k-means model, which evaluation metric represents the sum of the squared distances between each observation and its closest centroid?

1 / 1 point

- ☒ Inertia
☐ F1-score
☐ Silhouette score
☐ SMAPE

✔ **Correct**

Inertia represents the sum of the squared distances between each observation and its closest centroid. It is used to measure intracluster distances by gauging how closely related each observation is to the other observations within its own cluster.

2. Fill in the blank: A data professional may use the _____ method to choose an optimal value for k. This is a tool for identifying the point at which the decrease in inertia starts to level off.

1 / 1 point

- ☐ clustering
☒ elbow
☐ unsupervised learning
☐ partitioning

✔ **Correct**

A data professional may use the elbow method to choose an optimal value for k. This is the point at which the decrease in inertia starts to level off.

3. A data professional is using Scikit-learn to create a k-means model. Which attribute will enable them to get the cluster assignments?

1 / 1 point

- ☐ Silhouette score
☐ Fit
☐ Inertia
☒ Labels

✔ **Correct**

The labels attribute will enable them to get the cluster assignments. It returns a list of values that is the same length as the training data. Each value corresponds to the number of the cluster to which that point is assigned.