Congratulations! You passed!
Grade received 83.33%
Latest Submission Grade 83.33%
To pass 80% or higher
Go to next item

1. Which of the following statements correctly describe key aspects of k-means? Select all that apply. 1 / 1 point

- [x] To avoid poor clustering, data professionals run a k-means model with different starting positions for the centroids.

  Correct

- [x] K-means is an unsupervised partitioning algorithm.

  Correct

- [x] K-means clusters are defined by a central point, called a centroid.

  Correct

- [ ] The value of k is a standard that never changes.

2. A data analytics team building a k-means model assigns each data point to its nearest centroid. Which step of the model-creation process are they working in? 0 / 1 point

- ( ) Step one
- ( ) Step two
- (•) Step three
- ( ) Step four

Incorrect
Review the video that introduces k-means.

3. Fill in the blank: In order to evaluate the _____ space in a k-means model, a data professional uses the inertia metric. This is the sum of the squared distances between each observation and its nearest centroid. 1 / 1 point

- ( ) intercluster
- (•) intracluster
- ( ) midpoint
- ( ) converged

Correct

4. A junior data professional creates a k-means model. They observe a silhouette score coefficient with a value close to negative one.? What conclusion should they draw in this scenario? 1 / 1 point

- ○ The observation is on the boundary between clusters.
- ○ The observation is in the correct cluster.
- ◉ The observation may be in the wrong cluster.
- ○ The observation is suitably within its own cluster and well separated from other clusters.

✓ Correct

5. Which Python function would a data professional use to compare the inertias of multiple k values? 1 / 1 point

- ○ labels
- ○ silhouette score
- ○ cluster_image
- ◉ k-means inertia

✓ Correct

6. Which of the following statements accurately describe the elbow method? Select all that apply. 1 / 1 point

- ☑ The elbow method uses a line plot to visually compare the inertias of different models.

✓ Correct

- ☐ There is always an obvious elbow.
- ☑ When using the elbow method, data professionals find the sharpest bend in the curve.

✓ Correct

- ☑ The elbow method helps data professionals decide which clustering gives the most meaningful model.

✓ Correct