

## Machine learning

1. d) 8
2. d) 1,2 and 4
3. d) formulating the clustering problem
4. a) Euclidean distance
5. b) Divisive clustering
6. d) All answers are correct
7. a) Divide the data points into groups
8. b) Unsupervised learning
9. d) All of the above
10. A) K-means clustering algorithm
11. D) All of the above
12. A) Labeled data
13. **How is cluster analysis calculated?**

To make the clusters, we start by **measuring the distance from each data point to each of the 3 centroids**. And we assign the points to the cluster closest to it.

14. **How is cluster quality measured?**

To measure the quality of a clustering, we can **use the average silhouette coefficient value of all objects in the data set**.

15. **What is cluster analysis and its types?**

Cluster analysis is a **multivariate data mining technique whose goal is to group objects (eg., products, respondents, or other entities) based on a set of user selected characteristics or attributes**.

They are of two types

1. Hard Clustering.
2. Soft Clustering.