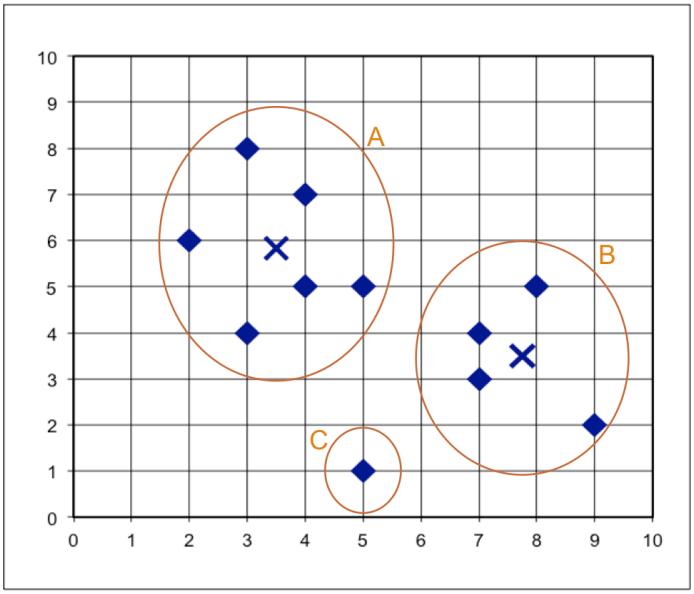
1 point

1. Which of the following is NOT a hierarchical clustering algorithm?

- ○ K-Means
- ○ BIRCH
- ○ CHAMELEON
- ○ AGNES

1 point

2. Consider the three clusters A, B, and C shown in Figure 1. Using Euclidean distance as the similarity measure, which two clusters would be merged first in agglomerative clustering using centroid link? Centroids in A and B are marked by x.



- A and B
- A and C
- B and C
- All three options above are tied.

1 point

3. Consider the three hierarchical clustering algorithms introduced in Lecture 4, BIRCH, CURE, and CHAMELEON. Which of the following statements about these algorithms is TRUE?

- Clustering results of BIRCH are not sensitive to the insertion order of data points.
- All three algorithms can only work with Euclidean distance as the similarity metric.
- CHAMELEON and CURE are better at capturing irregular shaped clusters than BIRCH.
- CHAMELEON requires a graph as the input.

Lesson 4 Quiz

Quiz, 4 questions

1 point

4. Recall from Lecture 4-8 that the objective of learning generative models is to find the parameters that maximize the likelihood of the observed data. Suppose we have a set of points D drawn from Gaussian distribution. For D = {-4, 5, 14}, which of the following set of parameters (μ, σ) produces the maximum $L(N(\mu, \sigma^2): D)$?

- μ = 5, σ = 9

mu = (-4+5+14)/3 = 5
sigma = sum(xi-mu)^2/n-1

- ○ $\mu = 4, \sigma = 5$
- ○ $\mu = 0, \sigma = 9$
- ○ $\mu = 5, \sigma = 4$

☑ I, **Yuhui Chou**, understand that submitting work that isn't my own may result in permanent failure of this course or deactivation of my Coursera account.

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