

MACHINE LEARNING

[Answer Keys](#)

1. a) 2 Only
 2. d) 1, 2 and 4
 3. a) True
 4. a) 1 only
 5. b) 1
 6. b) No
 7. a) Yes
 8. d) All of the above
 9. a) K-means clustering
 10. d) All of the above
 11. d) All of the above
 12. The K-means clustering algorithm is sensitive to outliers, because a mean is easily influenced by extreme values. The group of points in the right form a cluster, while the rightmost point is an outlier.
 13. Other clustering algorithms with better features tend to be more expensive. In this case, k-means becomes a great solution for pre-clustering, reducing the space into disjoint smaller sub-spaces where other clustering algorithms can be applied. K-means is the simplest.
 14. The basic k-means clustering is based on a non-deterministic algorithm. This means that running the algorithm several times on the same data, could give different results. However, to ensure consistent results, FCS Express performs k-means clustering using a deterministic method.
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