

1. C
2. D
3. False
4. A
5. C
6. B
7. A
8. D
9. A
10. D
11. D
12. The K-means clustering algorithm is sensitive to outliers, because a mean is easily influenced by extreme values. Instead of using the mean point as the center of a cluster, K-medoids uses an actual point in the cluster to represent it which is more robust to noises and outliers.
13. Relatively simple to implement, scales to large data sets, guarantees convergence, can warm-start the positions of centroids, easily adapts to new examples, generalizes to clusters of different shapes and sizes, such as elliptical clusters.
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.