

# Quiz Break

Q1-1: Which is true about feature vectors?


- A. Feature vectors can have at most 10 dimensions
- B. Feature vectors have only numeric values
- C. The raw image can also be used as the feature vector
- D. Text data don't have feature vectors



- A. Feature vectors can be in high dimen.
- B. Some feature vectors can have other types of values like strings
- D. Bag-of-words is a type of feature vector for text

# Quiz Break


Q1-2: Which of the following is not a common task of supervised learning?

- A. Object detection (predicting bounding box from raw images)
- B. Classification
- C. Regression
- D. Dimensionality reduction (PCA) 

Dimensionality reduction does not require label  $y$

# Quiz Break

Q2-1: Which is true about machine learning?

- A. The process doesn't involve human inputs
- B. The machine is given the training and test data for learning
- C. In clustering, the training data also have labels for learning
- D. Supervised learning involves labeled data 

- A. The labels are human inputs
- B. The machine should not have test data for learning
- C. No labels available for clustering

# Quiz Break

Q2-2: Which is true about unsupervised learning?

- A. There are only 2 unsupervised learning algorithms
- B. Kmeans clustering is a type of hierarchical clustering
- C. Kmeans algorithm automatically determines the number of clusters  $k$
- D. Unsupervised learning is widely used in many applications

