# Your grade: 100%

Your latest: **100%** • Your highest: **100%** • To pass you need at least 66%. We keep your highest score.

Next item →

**1.** What is the purpose of dimensionality reduction in enterprise datasets? 1 / 1 point

- (●) To improve model performance by reducing the number of features used.
- ( ) To create clusters for grouping data points.
- ( ) To predict the target with the best accuracy.
- ( ) To improve model performance by providing a ranking of the features and maximizing the features used.

**Correct**
Correct! This is accomplished by either selecting a subset of the original features or by creating new features from them.

**2.** (True/False) Principal Component Analysis reduces dimensions by identifying features that can be excluded. 1 / 1 point

- (●) False
- ( ) True

**Correct**
Correct! Instead, PCA creates new features that are linear combinations of the original ones.

**3.** Let's say that PCA found two principal components $v_1$ and $v_2$. $v_1$ accounts for 0.5 of the total amount of variance in our dataset and $v_2$ accounts for 0.24. Which one is more important and why? 1 / 1 point

- (●) $v_1$ because we will be able to maintain more of the original variance in the dataset.
- ( ) $v_1$ because it reduces 50% of the total variance in the dataset.
- ( ) $v_2$ because it accounts for lower variance in the dataset.
- ( ) $v_2$ because it reduces the amount of variance in the dataset.

**Correct**
Correct! We are able to retain more information about the original dataset by projecting