

1. Which scaling approach converts features to standard normal variables?

1 / 1 point

- ☒ Standard scaling
- ☐ Nearest neighbor scaling
- ☐ Robust scaling
- ☐ MinMax scaling

☒ Correct
Correct. Standard scaling converts variables to standard normal variables.

2. Which variable transformation should you use for ordinal data?

1 / 1 point

- ☐ Min-max scaling
- ☐ One-hot encoding
- ☒ Ordinal encoding
- ☐ Standard scaling

☒ Correct
Correct. Use ordinal encoding if there is some order to the categorical features.

3. What are polynomial features?

1 / 1 point

- ☐ They are logistic regression coefficients.
- ☒ They are higher order relationships in the data.
- ☐ They are represented by linear relationships in the data.
- ☐ They are lower order relationships in the data.

☒ Correct
Correct. Polynomial features are estimated by higher order polynomials in a linear model, like squared, cubed, etc.

4. What does Boxcox transformation do?

1 / 1 point

- ☐ It makes the data more right skewed.
- ☐ It transforms categorical variables into numerical variables.
- ☒ It transforms the data distribution into more symmetrical bell curve
- ☐ It makes the data more left skewed

☒ Correct
Correct. Boxcox is one of the ways we can transform our skewed dataset to be more normally distributed.

5. Select three important reasons why EDA is useful.

1 / 1 point

- ☐ To utilize summary statistics, to create visualizations, and to identify outliers
- ☐ To examine correlations, to sample from dataframes, and to train models on random samples of data
- ☐ To analyze data sets, to determine the main characteristics of data sets, and to use sampling to examine data
- ☒ To determine if the data makes sense, to determine whether further data cleaning is needed, and to help identify patterns and trends in the data

☒ Correct
Correct. EDA helps us analyze data to summarize its main characteristics.

6. What assumption does the linear regression model make about data?

1 / 1 point

- ☐ This model assumes a transformation of each parameter to a linear relationship.
- ☒ This model assumes a linear relationship between predictor variables and outcome variables.
- ☐ This model assumes an addition of each one of the model parameters multiplied by a coefficient.
- ☐ This model assumes that raw data in data sets is on the same scale.

☒ Correct
Correct. The linear regression model assumes a linear relationship between predictor and outcome variables.

7. What is skewed data?

1 / 1 point

- ☐ Raw data that has undergone log transformation.
- ☐ Data that has a normal distribution.
- ☐ Raw data that may not have a linear relationship.
- ☒ Data that is distorted away from normal distribution; may be positively or negatively skewed.

☒ Correct
Correct. Often raw data, both the features and the outcome variable, can be negatively or positively skewed.

8. Select the two primary types of categorical feature encoding.

1 / 1 point

- ☐ Encoding and scaling
- ☐ Log and polynomial transformation
- ☐ One-hot encoding and ordinal encoding
- ☒ Nominal encoding and ordinal encoding

☒ Correct
Correct. Encoding that transforms non-numeric values to numeric values is often applied to categorical features.

9. Which scaling approach puts values between zero and one?

1 / 1 point

- ☐ Nearest neighbor scaling
- ☐ Standard scaling
- ☒ Min-max scaling

☐ Robust scaling



Correct

Correct. Min-max scaling converts variables to continuous variables in the (0, 1) interval by mapping minimum values to 0 and maximum values to 1.

10. Which variable transformation should you use for nominal data with multiple different values within the feature?

1 / 1 point



Ordinal encoding



Min-max scaling



Standard scaling



One-hot encoding



Correct

Correct. Use one-hot encoding if there are multiple different values within a feature.