Quiz: Introduction to Predictive Modeling: Regressions

Your Score: 100% Congratulations! Your score indicates that you have mastered the topics in this lesson. You can review the feedback and when you're finished, exit the lesson.

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1. Which of the following statement **solves problems** for you when you impute missing values?

   a. When you impute a missing value by a synthetic value, it replaces missing values with 1 or 0.

   b. When you impute a missing value by a synthetic value, it eliminates the incomplete case problem.

   c. When you impute a missing value by a synthetic value, predictive information is retained.

   d. When you impute a missing value by a synthetic value, each missing value becomes an input to the model.

   Your answer: b
   Correct answer: b

   Imputing a synthetic value for a missing value eliminates the incomplete case problem but modifies the input's distribution, which can bias the model predictions.

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2. Which of the following is **not true** about results produced by the Regression node?

   a. Variable Summary information identifies the levels of variables used by the Regression node.

   b. Model Information provides you with information that includes the number of target categories and the number of model parameters.

   c. Type 3 Analysis of Effects provides you with information about the number of parameters that each input contributes to the model.

   d. Fit Statistics can provide information that affects decision predictions but does not affect estimate predictions.

   Your answer: d
   Correct answer: d

   Fit Statistics can provide information that effect both decision predictions and estimate predictions. If the decision predictions are of interest, model fit can be judged by misclassification. If estimate predictions are the focus, model fit can be assessed by average square error.

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3. Which of the following sequential selection methods optimize the complexity of the selected model?

a. Backward
b. Forward
c. Stepwise
d. None

Your answer: d
Correct answer: d

Optimizing the complexity is achieved by using an independent validation data fit statistic. Not by one of the sequential selection models.

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4. Which of the following *is incorrect* when you apply simple transformation to "regularize" input distributions?

a. Regression models are sensitive to extreme or outlying values in the input space.
b. When you perform simple transformation on inputs the posterior probability needs adjustment.
c. One benefit is improved model performance.
d. Another benefit is that simple transformation does not affect fit statistics.

Your answer: b
Correct answer: b

Simple transformation does not affect the magnitude of the predicted probability when fitting the logistic regression.

5. How would you *characterize* the effects of adding polynomial combinations of the model inputs to a regression?

a. Polynomial combinations of the model inputs enable predictions to better match the true input/target association.
b. Polynomial combinations of the model inputs decrease the chances of overfitting.
c. Polynomial combinations of the model inputs do not minimize prediction bias.
d. Polynomial combinations of the model inputs enhance the interpretability of the predictions.

Your answer: a
Correct answer: a

Polynomial combinations of the model inputs enable predictions to better match the true input/target association.

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