Congratulations! You passed!

Grade received 100% **To pass** 66% or higher

Go to next item

1. Which of the following is the meaning of "Out of Sample Accuracy" in the context of evaluation of models? **1 / 1 point**

- “Out of Sample Accuracy” is the accuracy of a model on all the data available.
- "Out of Sample Accuracy" is the accuracy of an overly trained model (which may capture noise and produced a non-generalized model)
- "Out of Sample Accuracy" is the percentage of correct predictions that the model makes on data that the model has NOT been trained on.
- “Out of Sample Accuracy” is the percentage of correct predictions that the model makes using the test dataset.

Correct
Correct! Out-of-sample accuracy represents how well the model is able to perform on unknown data.

2. When should we use Multiple Linear Regression? (Select two) **1 / 1 point**

- [x] When we would like to predict impacts of changes in independent variables on a dependent variable.

Correct
Correct! We hope to understand how the dependent variable change when we change the independent variables.

- [ ] When there are multiple dependent variables
- [x] When we would like to identify the strength of the effect that the independent variables have on a dependent variable.

Correct
Correct! Multiple linear regression is used for regression tasks involving more than one independent variable.

- [ ] When we would like to examine the relationship between multiple variables.

3. Which sentence is TRUE about linear regression? **1 / 1 point**

- Multiple linear regression requires a linear relationship between the predictors and the response, but simple linear regression does not.
- Simple linear regression requires a linear relationship between the predictor and the response, but multiple linear regression does not.
- A linear relationship is necessary between the independent variables and the dependent variable.
- A linear relationship is necessary between the independent and dependent variables as well as in between independent variables.

Correct
Correct! If the relationship is non-linear, then we must use non-linear regression.