5.1 Review Questions

5.1.R1

1/1 point (graded)

When we fit a model to data, which is typically larger?

- (●) Test Error
- ( ) Training Error

✔

Explanation

Training error almost always underestimates test error, sometimes dramatically

Submit

ℹ Answers are displayed within the problem

5.1.R2

1/1 point (graded)

What are reasons why test error could be LESS than training error?

- [x] By chance, the test set has easier cases than the training set.
- [ ] The model is highly complex, so training error systematically overestimates test error
- [ ] The model is not very complex, so training error systematically overestimates test error

✔

Explanation

Training error usually UNDERestimates test error when the model is very complex (compared to the training set size), and is a pretty good estimate when the model is not very complex. However, it's always possible we just get too few hard-to-predict points in the test set, or too many in the training set.

Submit

ℹ Answers are displayed within the problem