

Week 4 Practice Quiz

Practice Quiz, 5 questions

1
point

1.

True or False: If the R^2 value is low (less than 0.2), then the model assumptions in Bayesian regression are violated.

☐ True

☐ False

1
point

2.

Suppose we want to set a level k such that if we observe a data point more than k standard deviations away from the mean, we deem it an outlier. If the number of observations is 100, what is the probability that we observe at least one outlier that is at least 3 standard deviations away from its predicted value?

☐ 0.006

☐ 0.237

☐ 0.763

☐ 0.933

1
point

3.

True or False: The Bayesian Information Criterion (BIC) penalizes the number of parameters used by a constant penalty k (usually $k = 2$).

☐ True

☐ False

1
point

4.

True or False: If the priors on the regression coefficients β are not normal, the assumptions underlying Bayesian regression are violated.

☐ True

☐ False

1
point

5.

True or False: When selecting a single model after conducting an analysis with Bayesian model averaging, the model with the highest posterior model probability should be chosen.

☐ True

☐ False

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