



5.5 Review Questions

5.5.R1

1/1 point (graded)

If we have n data points, what is the probability that a given data point does not appear in a bootstrap sample?

$(1-1/n)^n$

✓ Answer: $(1-1/n)^n$

$$\left(1 - \frac{1}{n}\right)^n$$

Explanation

To construct a bootstrap sample, we repeatedly draw a single data point from a sample of size n , n times. Any given data point has a $1-1/n$ chance of not being selected in each draw. Hence, the chance of not being selected in any of the n draws is $(1-1/n)^n$

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i Answers are displayed within the problem