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- ▶ [Module 1: The Basics of R and Introduction to the Course](#)
- ▶ [Entrance Survey](#)
- ▶ [Module 2: Fundamentals of Probability, Random Variables, Distributions, and Joint Distributions](#)
- ▶ [Module 3: Gathering and Collecting Data, Ethics, and Kernel Density Estimates](#)
- ▶ [Module 4: Joint, Marginal, and Conditional Distributions & Functions of Random Variable](#)

Module 7: Assessing and Deriving Estimators - Confidence Intervals, and Hypothesis Testing > Assessing and Deriving Estimators > Maximum Likelihood Estimation - Quiz

Maximum Likelihood Estimation - Quiz

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Question 1

1.0/1.0 point (graded)

Which of the following is true about the maximum likelihood estimator? (Select all that apply.)


- ☒ a. The maximum likelihood estimator is the value of the parameter which corresponds to the distribution that most likely produced the observed data.
- ☒ b. The maximum likelihood estimator is the value of the parameter which describes the distribution for which the peak of the distribution is the same as the peak of a histogram that most closely matches the histogram made from the observed sample.
- ☐ c. The maximum likelihood estimator is always unbiased.
- ☐ d. To find the maximum likelihood estimator, we equate population and sample moments.




Explanation

- ▶ [Module 5: Moments of a Random Variable, Applications to Auctions, & Intro to Regression](#)
- ▶ [Module 6: Special Distributions, the Sample Mean, the Central Limit Theorem, and Estimation](#)
- ▼ [Module 7: Assessing and Deriving Estimators - Confidence Intervals, and Hypothesis Testing](#)


Assessing and Deriving Estimators

Finger Exercises due Nov 14, 2016
at 05:00 IST 

Confidence Intervals and Hypothesis Testing

Finger Exercises due Nov 14, 2016
at 05:00 IST 

Module 7: Homework

Homework due Nov 07, 2016 at
05:00 IST 

The maximum likelihood estimator is the value of the parameter associated with the member of the family of distributions we are examining that “best fits” the observed data. (a) and (b) are consistent with this definition. (c) must be false; we learnt previously that the n th order statistic, which is biased, is a maximum likelihood estimator. (d) is how we find estimators using the method of moments.

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You have used 1 of 2 attempts

Question 2

1.0/1.0 point (graded)

We find the maximum likelihood estimator by:

- ☒ a. Maximizing the likelihood function, $L(\theta|x)$, over the parameter θ . ✓
- ☐ b. Maximizing the likelihood function, $L(x|\theta)$, over the parameter θ .
- ☐ c. Maximizing the likelihood function, $L(\theta|x)$, over the parameter x .
- ☐ d. Maximizing the likelihood function, $L(x|\theta)$, over the parameter x .

Explanation

The likelihood function tells us the likelihood that the parameter of the underlying distribution is θ given our observations x -- that is, it is function of our parameter θ conditional on x (hence the $\theta|x$).

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Discussion

Topic: Module 7 / Maximum Likelihood Estimation - Quiz

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