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## Examples of Maximum Likelihood Estimation, Part II - Quiz

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### Question 1

1.0/1.0 point (graded)

The example in this segment looks at estimating  $\theta$  in a (uniform)  $U[0, \theta]$  distribution. We see that the  $n^{th}$  order statistic is: (Select all that apply)

- ☒ a. A lower bound for  $\theta$
- ☐ b. An upper bound for  $\theta$
- ☒ c. The maximum likelihood estimator.
- ☒ d. The maximum value in our observation sample.




### Explanation


In this lecture segment, we see that maximizing the likelihood function results in choosing the  $n^{th}$  order statistic for our estimator. By definition, the  $n^{th}$  order statistic is the maximum value we observe. We know that must be greater than or equal to the  $n$ th order statistic because seeing a value greater than is a zero probability event in a  $U[0, \theta]$  distribution.

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### **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 

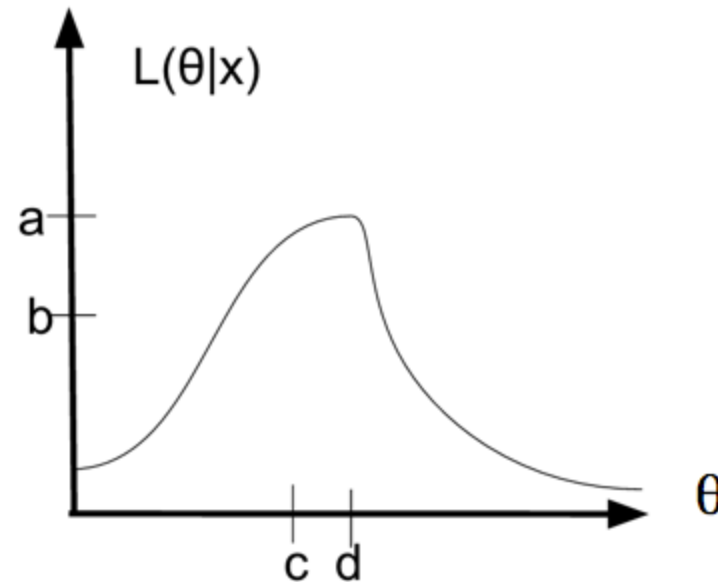
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You have used 1 of 2 attempts

## **Question 2**

1.0/1.0 point (graded)

According to the following graph, which of the following is the maximum likelihood estimator?



☐ a

[Exit Survey](#)☐ b☐ c☒ d ✓**Explanation**

The maximum likelihood estimator is the value of the parameter where the likelihood function is maximized. (c) and (d) both represent values of the parameter, and the likelihood function is maximized at d.

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**Discussion**

**Topic:** Module 7 / Examples of Maximum Likelihood Estimation, Part II - Quiz

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