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# META

Conditional Expectation, Continuous Probability, Continuous Distributions

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## 1 General Comments

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### 1. Conditional Expectation

- Make the connection between normal expectation and conditional expectation, and explain intuitively what conditional expectation means
- Explain what LLSE is, and why the formula makes sense—intuitively, why. If there is time or interest, prove it.

### 2. Continuous Probability

- Be sure to go over conditional expectation (we apologize for the confusion, all the TAs were under the impression we weren't covering it, then the professor went ahead and covered it).
- Try to draw parallels between discrete and continuous; something that helps is writing out the sums and then replacing everything with integral (do calculus review as necessary)

## 2 Questions

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### 2.1 Conditional Expectation

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#### 1. Expectation of Conditional Expectation

- Using many properties of summations, make sure students understand each step

#### 2. Take Out $h$

- Using many properties of summations, make sure students understand each step

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### 3. Given Probability Distribution

- Plug and chug, going back to basic distributions.