Pre-class preparation

Please watch the following video:

- Video: Conditional expectation given an event

Objectives

By the end of the day's class, students should be able to do the following:

- State the definition of conditional expectation given an event.
- Apply the Law of Total Expectation to compute unconditional expected values.

Reflection Questions

Please submit your answers to the following questions to the corresponding Canvas assignment by 7:45AM:

1. Suppose X is a discrete random variable and let $Y = X^3$. Evaluate $\mathbb{E}[Y|X = 2]$ using the definition of conditional expectation given an event. Does your answer agree with your intuition?
2. In your own words, explain what the Law of Total Expectation means. Limit your answer to 2 - 3 sentences.
3. (Optional) Is there anything from the pre-class preparation that you have questions about? What topics would you like would you like some more clarification on?