

Pre-class preparation

Please watch the following video, as indicated:

- Video: Probability review

Objectives

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

- Review important concepts from MATH/STAT 310.
- Re-familiarize yourself with common, “named” distributions.
- Understand the difference between conditional expectation given an event versus given a random variable.

Reflection Questions

Please submit your answers to the following questions to the corresponding Canvas assignment by 9:00AM:

1. Suppose that A and B are events such that $\Pr(A) = 1/3$, $\Pr(B) = 1/5$, and $\Pr(A|B) + \Pr(B|A) = 2/3$. Evaluate $\Pr(A^c \cup B^c)$.
2. Let $X \sim \text{Unif}(0, 1)$. Define a new random variable $Y = e^{-X}$. Find $\mathbb{E}[Y]$.
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?