

Section 1: From assigned reading

What is probability ?	
Define: random probability	
What is theoretical or classical probability ?	
What are empirical probabilities ?	
How does the law of large numbers relate to empirical and theoretical probabilities?	
What are simulations and why are they used in statistics?	

Section 2: From assigned reading

Define: Sample Space	
What is an event in probability?	
What is the complement of an event?	
What is a Venn diagram and why is it important to the study of probabilities?	
Define the fundamental counting principle for probabilities.	
What is the addition rule for probability?	
What does it mean to be mutually exclusive ?	
What is the $P(A \wedge B)$ when events are mutually exclusive?	
What is the $P(A \wedge B)$ when events are not mutually exclusive or inclusive?	

Section 2: From assigned reading

What would be the Venn diagram and consequently the probability formula for $P(A \text{ or } B \text{ or } C)$, with inclusive events?

Section 3: From assigned reading.

What does it mean when events are independent ?	
What is the multiplication rule for probabilities that are independent?	
What does it mean when events are dependent or associated?	
What is the multiplication rule for conditional probabilities ?	
What is the difference between mutually exclusive and independence?	

Section 4: From assigned reading

How does one determine if events are independent?	
Explain what is meant by margin of error ? No formulas.	
What happens to a margin of error as the sample size or number of trials increases?	
How does one determine the number of trials needed in a simulation to give an accurate estimate of theoretical probabilities?	