STA2023 course is subdivided into two major parts: Descriptive Statistics and Inferential Statistics.

In chapter 2, you learned about descriptive statistics. The second major part in statistics is Inferential Statistics which has probability as it foundation. Therefore, in chapters 3, 4, and 5, you will learn about probability, Discrete Probability Distributions and Normal Probability Distributions respectively. And in chapters 6 and 7 you will learn inferential statistics.





1. Let’s practice how to find the sample space for several experiments.

Example 1: A probability experiment consists of tossing a coin, identify the sample space.

Example 2: A probability experiment consists of tossing a pair of coins, identify the sample space.

Example 3: A probability experiment consists of tossing three coins, identify the sample space.

Example 4: A probability experiment consists of rolling a die, identify the sample space.

Example 5: A probability experiment consists of rolling a pair of dices, identify the sample space.

Example 6: A probability experiment consists of tossing a coin and then rolling a six-sided die. Identify the sample space.

An event that consists of a single outcome is called a **simple event.**





1. **Probability:** There are three types of probability:





Subjective Probability: results from intuition, educated guesses, and estimates.

Let’s find the probability for different events:



Example 8: You select a card from a standard deck of playing cards. Find the probability of each of the following events:

1. Event D: Selecting the nine of clubs

1. Event E: Selecting a Heart.
2. Event F: Selecting a face card.

Example 9: Roll a pair of dices. Find the probability that the sum of the numbers rolled is seven.

Example 10: Toss three coins. Find the probability of getting exactly two heads.

Example 11:



NOTE: The probability of an event E is between 0 and 1, inclusive.

NOTE:

