

MODULE 12.1 - INTRODUCTION TO PROBABILITY**LEARNING OBJECTIVES**

In this section, you will:

- Basic probability
- Complementary events
- Odds
- Probability for independent events

INTRODUCTION

- State the definition of events and outcomes.
- State the definition of basic probability.
- State the definition of certain and impossible events.
- State the definition of the complement of an event.
- State the definition of odds.
- State the definition of independent events.
- State the definition of $P(A \text{ and } B)$ for independent events.
- State the definition of $P(A \text{ or } B)$.

MODULE 12.1 - CLASS NOTES

1. At some random moment, you look at your clock and note the minutes reading.

- Determine the probability the minutes reading is exactly 15.
- Determine the probability the minutes reading is less than 15 minutes.
- Determine the probability the minutes reading is greater than 15 minutes.

2. In your drawer you have 10 pairs of socks, 6 of which are white, and 7 tee shirts, 3 of which are white. If you reach in and randomly grab a pair of socks and a tee shirt, what is the probability that at least one is white?

3. Suppose we draw one card from a standard deck of cards.

- Determine the probability that we draw a red queen.
- Determine the probability that we draw a card that is either black or a three.