

# Composition of Functions

After completing this section, students should be able to do the following.

- State the definition of a function.
- Find the domain and range of a function.
- Distinguish between functions by considering their domains.
- Determine where a function is positive or negative.
- Plot basic functions.
- Perform basic operations and compositions on functions.
- Work with piecewise defined functions.
- Determine if a function is one-to-one.
- Recognize different representations of the same function.
- Define and work with inverse functions.
- Plot inverses of basic functions.
- Find inverse functions (algebraically and graphically).
- Find the largest interval containing a given point where the function is invertible.
- Determine the intervals on which a function has an inverse.