Applied optimization

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

- Recognize optimization problems.
- Translate a word problem into the problem of finding the extreme values of a function.
- Solve basic word problems involving maxima or minima.
- Interpret an optimization problem as the procedure used to make a system or design as effective or functional as possible.
- Set up an optimization problem by identifying the objective function and appropriate constraints.
- Solve optimization problems by finding the appropriate absolute extremum.
- Identify the appropriate domain for functions which are models of real-world phenomena.

Learning outcomes: