# **Basic Functions**

### Basic Functions: Sample Program List

#### my\_first\_function.py

This sample program illustrates the most basic form of function definition and use. The function to compute  $x^2 + 2x + 1$  is defined and called four times.

### nonnumerical\_functions.py

The second sample program illustrates non-numerical Python functions. There are two versions. The first one returns a greetings string, while the second prints out the greeting and returns None.

## python\_parameter\_passing\_illustrated.py

This sample program illustrates the parameter transmission mechanism in Python. It shows the changes made to the parameters, which are local to the function, will not be reflected in the corresponding arguments of the calling side.

#### nested\_function\_call.py

There are three functions defined in this program. The poly function, from it's function body, calls the other two functions prod and sum. The program illustrates how the function calls can be nested, i.e., a function calls another function.

# mortgage\_calc\_with\_functions.py

This is a mortgage calculator program developed earlier, but this version includes functions for computing the monthly and total payments.