# Lab X

1. Create a function template named circleArea(). The function receives a parameterized

argument representing the radius of a circle, and returns a double representing the circle's
area. (The area is computed as 3.14 multiplied by the radius squared).
Write a main()function that demonstrates that the function works correctly with either an integer or a double argument.

2. Create a Job class that holds a Job ID number and the cost of the Job. Include insertion

and extraction operators. Create a JobException class that holds a Job and an error message.
When the user enters Job data, if the Job fee is below $250, then create a JobException
object and throw it. Write a main()function that declares an array of eight Job objects.
If a JobException object is thrown during the data entry for any Job, require the user
to enter data for a new Job, and replace the invalid Job.

3. Create an Inventory class with data members for stock number, quantity, and price, and

overloaded data entry and output operators. The data entry operator function should throw:
» An error message, if the stock number is negative or higher than 999
» The quantity, if it is less than 0
» The price, if it is over $100.00
Write a main()function that instantiates an array of five Inventory objects, and accepts

data for each. Display an appropriate error message for each exception situation. When an
exception is detected, replace all data fields with zeroes. At the end of the program, display
data fields for all five objects.

4. Create a function template named average(). It accepts two arguments of the same type and computes their arithmetic average. The average is returned as a double. Overload the average()function to work correctly with three arguments.