

## Variables and Basic Arithmetic

### **Purpose:**

In this worksheet, you will familiarize yourself with the C++ programming environment and write your first own short programs.

### **Tasks:**

- a. Write a C++ program that computes and displays the area of a triangle given its base and height. You may assume that the base and height are given in your program.
- b. Modify your program in Task (a) to allow for interactive input of the base and height of the triangle. Your program should prompt the user to enter value of the base and height of the triangle.
- c. Write a C++ program that computes and displays the product of three integers entered by the user.
- d. Write a C++ program that computes the area of a square given its side length. Your program should prompt the user to enter value for the length of the square.
- e. Write a C++ program that computes the area of a circle given its radius. Your program should prompt the user to enter value for the radius of the circle.
- f. Modify your program in Task (e) to use a programming constant for the value of  $\pi$ .