## **Initial and If Structure**

Write a program that can calculate the sum and average of three numbers.

There is given the radius of a circle. Find the area, circumference of it. (*Use*  $\pi$  *as a symbolic constant*).

There is given the area and height of a triangle. Find out the base of triangle.

There are three values of three lines: Find out the area of it.

Write a program to compute the roots of a quadratic equation  $ax^2 + bx + c = 0$  use following conditions.

- (i) There is only one root, if a = 0 (x = -c/b).
- (ii) There are no real roots, if  $b^2$ -4ac is negative.

Otherwise, there are no real roots.

Find out the maximum of two numbers using if structure.

Find out the maximum of three numbers using only if structure.

Write a program that convert temperature to from Fahrenheit to Celsius and vice versa.

Write a program that can say the Askey value of a key of keyboard.

Write a program that can say whether it is Character, digit or functional key.

Write a program that can test whether a number is Odd or Even.

Writ a program that can test whether it is divisible by 5 or not.

Write a program that can test a year whether it is leaper or not.

Write a program that can test a number whether it is negative or positive.

Write a program that can say the name of weekdays by receiving 1 to 7. Using (i) If-then-else statement and (ii) Switch Statement.

Write a program that can say the name of Month by receiving 1 to 12. Using (i) Ifthen-else statement and (ii) Switch Statement.

Write a program that can convert an upper case letter to lower case letter and vice versa.

Write a program that will obtain the length and width of a rectangle from the user and compute its area and perimeter.

Using the conditional operator find out the maximum of two numbers.

Using the conditional operator find out the maximum of three numbers.

Write a program that read the value of x and evaluate the following function using if statement and? Operator:

$$y = \begin{cases} 1 & \text{for } x > 0 \\ 0 & \text{for } x = 0 \\ 1 & \text{for } x < 0 \end{cases}$$

Do the above program using the function.