ALGORTHM:

1.Implement an algorithm to check wether a given year is a leap year.

1.Ask the user to enter the Year.

2. If Year MOD 4 == 0 and Year MOD 100 !== 0.

3.Print “ You have entered a leap year.”

4.Else If Year MOD 400 == 0.

5.Print “ You have entered a leap year.”

6.Else Print “You haven’t entered a leap year.”

2.Implement an algorithm to count the number of occurrences of each character in each string.

1.Ask the user to enter a string

2.Initialize a variable with value zero.

3.For each character present in the string.

4.If the variable is already present in the directory.

5.Increment the value by 1.

6.Else create another variable and give it the value of 1.

3.Write an algorithm to calculate the value of x raised to the power y without using built-in power functions.

1.Ask the user to enter x.

2.Ask the user to enter y.

3.Set answer to 0.

4.set z to 1

5.do answer = x\*x

6. z = z+1

7. while z =< y

8. Print “answer”

4. Calculate the area of a circle given its radius.

1.Ask the user to enter radius.

2.Set area to ( pi \* radius \* radius)

3.Display area for the user.

5.Find the median of three given numbers.

1.Ask the user to input three numbers ‘A’,’B’,’C’.

2.Make sure the numbers aren’t equal.

3.If the numbers are equal.

4.Print “Invalid Input”.

5.Else.

6.Compare the three numbers.

7.If A>B>B OR C>B>A.

8.Print “B is the median”.

9.Else if B>A>C OR C>A>B.

10.Print “A is the median”.

11.Else Print “C is the median.”