Day 3

Assignment

1 .Write a program to find the factorial of a given positive integer.

Hint : n! = n (n-1) (n-2) …. (1)

Where 0! = 1; 1! = 1

13. Write a program to find the value of a number x raised to the power y, where x and y are to be accepted from the user (use for loop).

2. Write a program that examines all numbers from 1 to 999 displaying those numbers where the sum of the cubes of the individual digits equals the number itself(Armstrong numbers).

3. Produce a list of prime numbers from 1 to 999.

Hint : A prime number is one that is divisible only by 1 and itself.

4. Write a program which would accept two integers and compute their Greatest Common Divisor (GCD). The GCD of two numbers is the same as the GCD of one of the numbers and the difference between the two numbers (use do ….while loop).

Example : GCD of 26,65 is the same as the

GCD of 26, 39 which is same the

GCD of 26, 13 which is same as the

GCD of 13, 13.

Thus GCD of 26, 65 is 13.

5. Write a program which accepts a number n, finds and display the sum of integers 1 to 2, then 1 to 3, then from 1 to 4……etc., until it displays sum of integers 1 to n.

Example : If the input is 5, then the output will be 3, 6, 10, 15.

6. Write a program to reverse an integer (use do…..while loop).

Example: If the input is 7931, then the output will be 1397.

The reversed number should be stored in an integer .

Hint: n%10 can be used to extract the last digit.

7. Fibonacci numbers form an infinite series

1 1 2 3 5 8 13….

Each number is the sum of the previous two numbers.

Write a program which will generate the series to n number of terms where n is accepted from the user.