Day 8

Lab Assignments

1. WAP to find out $x^n/n!$ where the value of x and n will be inputted from the keyboard.
   Input: Enter the value of x and n: 2 5
   Output: 2 to the power 5 divided by 5! = 0.2666
2. WAP to check whether a number n is prime number or not.
   Input 1: Enter a number: 7
   Output 1: 7 is a prime number.
   Input 2: Enter a number: 24
   Output 2: 24 is not a prime number.
3. WAP to print the series as 0, 1, 3, 7, 15, 31, ...up to an inputted number n.
   Input: Enter a number: 35
   Output: Series: 0, 1, 3, 7, 15, 31,
4. WAP to print the series sum of the following series S = 1 + (1+2) + (1+2+3) + ... + (1+2+3+...+n)
   Input: Enter the value of n: 5
   Output: Sum of the series: 35
5. WAP to check whether an input integer is perfect square or not.
   Input 1: Enter a number: 30
   Output 1: 30 is not a perfect square.
   Input 1: Enter a number: 25
   Output 1: 25 is a perfect square.

Home Assignments

1. WAP to test whether a number is Perfect Number or not. (A number is said to be Perfect when the sum of factors excluding the number itself is equal to the original number.)
   Input 1: Enter a number: 28
   Output 1: 28 is a Perfect Number
   Input 2: Enter a number: 7
   Output 2: 7 is not a Perfect Number
2. WAP to print the prime numbers within a given range.
   Input: Enter a range: 1 20
   Output: Prime numbers within range 1 and 20 are: 2 3 5 7 11 13 17 19
3. WAP to print the multiplication table of an inputted number.
   Input: Enter a number: 5
   Output: 5 × 1 = 5
   5 × 2 = 10
   5 × 3 = 15
   5 × 4 = 20
   5 × 5 = 25
   5 × 6 = 30
   5 × 7 = 35
   5 × 8 = 40
   5 × 9 = 45
   5 × 10 = 50
4. WAP to find the sum of the square of first n numbers.
   Input: Enter a number: 5

Output: Sum of the square of first 5 numbers: 55

5. WAP to check whether an integer number is an Armstrong number or not. A number is Armstrong when the sum of each of its digits raised to the power of the number of digits is same as the number.
   Input 1: Enter a number: 153
   Output 1: 153 is an Armstrong number
   Input 2: Enter a number: 253
   Output 2: 253 is not an Armstrong number