

X-ICSE PROJECT 2014

1) Write a program to accept the initial velocity, acceleration and time period. Find the displacement of the body using the formula $s = ut + \frac{1}{2}at^2$

2) Accept a number and find the sum of the digits. Ex. Input 4589 Output 26

3) Write a program to calculate commission for the salesmen. The commission is calculated according to following rates:

Sales	Commission Rate
30001 onwards	15%
22001 – 30000	10%
12001 – 22000	7%
5001 – 12000	3%
0 – 5000	0%

The program accepts the sales made by the salesman and displays the calculated commission.

4) Write a program to accept a number 'n' and find the sum of the following series up to n-terms. $1 - \frac{2}{2!} + \frac{3}{3!} - \dots + \frac{n}{n!}$

5) Write a program to display the formatted series

```
1
0 1
1 0 1
0 1 0 1
1 0 1 0 1
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6) Write a program to define the following functions to find the roots and nature of the quadratic equation $ax^2 + bx + c$

accept() – to read the co-efficient of x^2 , x and constant

compute() – to calculate the roots and nature

display() – to display the roots and nature

and a main() to drive all the user defined functions.

7) Write a program to define a user defined function to find whether a number is prime or not prime.

Prime() – a constructor to initialize

boolean isPrime() – to compute prime or not prime

and a main() to drive all the user defined methods.

8) Write a program to accept text and display the reverse of each word without changing the position of the word.

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Ex. Input – towards excellence and relevance
Output – sdrowot cenellecxe dna ecnaveler

9) Write a program to accept text and display it in title case.

Ex. Input - the quick brown fox jumps over the lazy dog
Output- The Quick Brown Fox Jumps Over The Lazy Dog

10) Write a program to accept text and find the number of characters, vowels and words.

Ex. Input - welcome to sun micro systems
Output- Number of words – 5
Number of characters – 24
Number of vowels – 8

11) Write a program to sort the following elements in an array using bubble sort.

44, 33, 55, 22, 11

12) Write a program to accept a number and find whether it exists or does not exist in the list of array elements.

10, 12, 14, 21, 26, 34, 37, 42, 47, 55 and 64.