



Beginner's Assignment

Launchpad (C++ Foundation)

1. Write a program to accept the principal amount, rate and time and calculate the simple interest and the total amount.
2. Write a program to input name and marks of three tests of any student and calculate and print the name and average of best two test marks.
3. Write a program that works as a simple calculator. It reads two integers and a character. If the character is a +, the sum is printed; if it is a -, the difference is printed; if it is a *, the product is printed; if it is a /, the quotient is printed; and if it is a %, the remainder is printed.
4. Write a program to determine whether the entered character is in upper case or lower case, or is an invalid character.
5. Write a program to calculate the total salary of a person. The user has to enter the basic and the grade and depending upon which the total salary is calculated as:
$$t_sal = basic + hra + da + allow - pf$$

where :

 - hra = 20% of basic
 - da = 50% of basic
 - allow = 1700 if grade = 'A'
 - allow = 1500 if grade = 'B'
 - allow = 1300 if grade = 'C'
 - pf = 11% of basic.
6. Write a program to calculate the roots of a quadratic equation $ax^2 + bx + c = 0$, display them on the screen specifying their nature.

7. Write the programs to print the following patterns:

(a) 1
11
111
1111
11111

(d) 1
11
202
3003
40004

(b) 1
11
101
1001
10001

(e) 1
11
121
1221
12221

(c) 1
11
121
1331
14641

(f) 5
44
333
2222
11111