**MODULE 2**

**PRACTICE PROBLEMS – SET 2**

1. Indicate whether each of the following lines are statements that do not contain expressions, statements that contain expressions, or are expression statements.
2. int x;
3. int x = 5;
4. x = 5;
5. What will be the output of the following code?

class Program

    {

        static void Main(string[] args)

        {

            int x = 5;

            Console.WriteLine(x != 5);

            Console.ReadLine();

        }

    }

1. What will be the output of the following code? Explain why.

class Program

    {

        static void Main(string[] args)

        {

            int a, b;

            b = 10;

            a = ++b + ++b;

            Console.WriteLine(" a = {0}, b={1}", a, b);

            Console.Read();

        }

    }

1. Use the “if conditional statements” to find the largest among three integers.
2. Rewrite the given equation as a valid C# expression

The formula for calculating a periodic payment based on the principal, the periodic interest rate, and the number of periods:
payment = PR/(1-(1+R) to the power of -N

1. Rewrite the given equation as a valid C# expression

h times the square root of a squared plus b squared

1. What do you mean by preprocessor directive (“#”)?
2. Write a program which accept principle, rate and time from user and print the simple interest.
3. Write a program that can decide whether an input year is a Leap Year or not.
4. Write a program that can verify whether a number is divisible by 7.
5. Write a program that can verify whether a number is divisible by both 3 and 5.
6. Write a program that can verify whether a number is either divisible by 3 or 5.
7. [Write a program to check whether a number is negative, positive or zero.](https://codeforwin.org/2015/05/c-program-to-check-negative-positive-zero.html)
8. [Write a program to check whether a number is divisible by 5 and 11 but not by 10.](https://codeforwin.org/2015/05/c-program-to-check-whether-number-is-divisible-by-5-and-11.html)
9. [Write a program to check whether a number is even or odd.](https://codeforwin.org/2015/05/c-program-to-check-even-odd.html)
10. [Write a program to check whether a character is alphabet or not.](https://codeforwin.org/2015/05/c-program-to-check-alphabet.html)
11. [Write a program to input any alphabet and check whether it is vowel or consonant.](https://codeforwin.org/2015/05/c-program-to-check-vowel-or-consonant.html)
12. [Write a program to input any character and check whether it is alphabet, digit or special character.](https://codeforwin.org/2015/05/c-program-to-check-alphabet-digit-special-character.html)
13. [Write a program to check whether a character is uppercase or lowercase alphabet](https://codeforwin.org/2015/09/c-program-to-check-whether-character-is-uppercase-or-lowercase.html).
14. [Write a program to input week number and print week day](https://codeforwin.org/2015/05/c-program-to-print-week-name.html).
15. [Write a program to input month number and print number of days in that month.](https://codeforwin.org/2015/05/c-program-to-print-number-of-days-in-month.html)
16. [Write a program to count total number of digits in a given number](https://codeforwin.org/2015/07/c-program-to-count-total-number-of-notes.html).
17. [Write a program to input angles of a triangle and check whether triangle is valid or not.](https://codeforwin.org/2015/05/c-program-to-check-whether-triangle-is-valid-or-not.html)
18. [Write a program to input all sides of a triangle and check whether triangle is valid or not.](https://codeforwin.org/2015/05/c-program-to-check-whether-triangle-side-is-valid-or-not.html)
19. [Write a C# program to input a subject marks and calculate percentage and grade according to the following:](https://codeforwin.org/2015/05/c-program-to-enter-student-marks-and-calculate-percentage-and-grade.html)  
    Percentage >= 90% : Grade A  
    Percentage >= 80% : Grade B  
    Percentage >= 70% : Grade C  
    Percentage >= 60% : Grade D  
    Percentage >= 40% : Grade E  
    Percentage < 40% : Grade F
20. [Write a C# program to input basic salary of an employee and calculate its Gross salary according to the following formula:](https://codeforwin.org/2015/05/c-program-to-calculate-gross-salary-of-employee.html)  
    Basic Salary <= 10000 : HRA = 20%, DA = 80%  
    Basic Salary <= 20000 : HRA = 25%, DA = 90%  
    Basic Salary > 20000 : HRA = 30%, DA = 95%
21. [Write a C# program to input electricity unit charges and calculate total electricity bill according to the given condition:](https://codeforwin.org/2015/05/c-program-to-calculate-electricity-bill.html)  
    For first 50 units $0.50/unit  
    For next 100 units $0.75/unit  
    For next 100 units $1.20/unit  
    For unit above 250 $1.50/unit  
    An additional surcharge of 20% is added to the total bill.

Thank You.