

1. What's the output of following program:

```
#include<iostream>
void main()
{
    int i = 100;
    i = i + i;
    std::cout << "V1:" << i + i << i << std::endl;
}
```

2. What is the output of following program:

```
#include<iostream>
void main()
{
    int i = 6;
    double j;
    j = i / 4;
    std::cout << "Val = " << j << std::endl;
}
```

3. Write a program that declares two intergers, assigns them the values of 20 and 50, and displays result of their division.

4. Find bug(s) in the following code, if any:

```
#include<stdio.h>
void main()
{
    double i = 12, j = 5, avg;
    avg = i + j / 2;
    printf("Avg = %.2f\n", avg);
}
```

5. Write a program to print: Aristotle said, "Well begun is half done".

6. Write a program to print: This is the share for lecture slides: \\10.100.56.21\Lecture\Lavneet Singh\IT603.

7. Write a program to take input from three students (one by one) - their names and marks obtained (out of maximum of 500).

Then calculate their percentages and print in the form:

<student name1> scored x.x%

<student name2> scored x.x%

<student name3> scored x.x%

[Note: i) Avoid using loops as we have not yet covered them. ii)

Maximum marks is fixed to 500.]

8. Write a program in input a string that may includ spaces and calculate -

i) number of words in it (ie group of letters separated by space.

think about different way user might input, like what if there are more than one space, or, spaces in the begining / end of the string

ii) number of vowels in the string

9. Write a program to print multiplication table (upto 10) of any number. The output should be like this:

5 x 1 = 5

5 x 2 = 10

..and so on till

$$5 \times 10 = 50$$

10. Write a program to count number of digits in any number. (Hint: Two integer divisions of any two digit number by 10 results in 0)

11. Write a program to toggle nth bit of a number.

12. Write a program to print all odd number between 1 to 100.

13. Write a program to enter any number and print its reverse.

14. Write a program to input marks of five subjects Data Structures, C Programming, DB, Mathematics and CS. Assume 100 as max marks.

Calculate percentage and grade according to following:

Percentage $\geq 90\%$: Grade A

Percentage $\geq 80\%$: Grade B

Percentage $\geq 70\%$: Grade C

Percentage $\geq 60\%$: Grade D

Percentage $\geq 40\%$: Grade E

Percentage $< 40\%$: Grade F

15. Write a program to input any alphabet and check whether it is vowel or consonant.

16. Write a program to input month number and print number of days in that month.

17. Write a program to input all sides of a triangle and check whether triangle is valid or not.