1. What will be the output of following code:

```
int main()
{
    char ch = 97;
    cout<<ch;

    return 0;
}
```

2. What will be the output of following code:

```
int main()
{
    int a = 19.223;
    cout<<a;

    return 0;
}
```

3. Initialize the variable with 'a' and print 'a b c d e' using that variable;
4. Write the program that cause overflow and underflow.
5. Take the input and multiply it by 3 without using multiply operator.
6. Input an integer value representing the weekday (1, 2, …, 7), and give the day of the week (Monday, Tuesday, …, Sunday)
7. Take the lowercase alphabet as input and print in uppercase.

   i.e., input: a output: A
8. Take 2 numbers as input and tell if 1st is divisible to 2nd.
9. Take 2 numbers and 1 operator and perform that operation on those 2 numbers (i.e., operator will be only +, -, /, *).

10. Write a program that print 4 if user input 5 and print 5 if user input 4 without using if statement.
11. Design an algorithm that asks the user how many eggs he/she has bought and then tells the user how many dozen eggs he/she has and how many extra eggs are left over. A sample run of your algorithm is given below. Text shown in red is entered by the user. Sample run: How many Eggs you bought: 42 You bought 3 dozen and 6 extra Egg.
12. Take the input of second and print in hh:mm:ss format.
    (i.e., input: 34556 output: **09:35:56**)
13. Take the input and print true if number is between 10 – 20
14. Take 2 numbers x and y, and prove that $(a+b)^2 = a^2 + b^2 + 2ab$
15. Design an algorithm that takes two integers from the user, displays them on screen, swaps them, and again displays them on screen. For example, if the user enters 10 and 15, then your algorithm stores them in variable a and b respectively. After swap, variable a and b have 15 and 20 values respectively.
16. Take input numbers in x and y. Output 'true' if x is between 10 – 20 or y is smaller than 10.
17. Design an algorithm which asks the user to enter a 3-digit positive integer. Then, the algorithm should calculate and display the sum of the digits of that integer. For example, if the user enters 786, then your algorithm should display 21 on screen