Question 1: Write a C++ program that calls a function print_table(). The function is supposed to print the table of a user entered number till 5 on console.

Sample Output:

```
Enter Number: 3

3*1=3
3*2=6
3*3=9
3*4=12
3*5=15
```

Question 2: Create a C++ function find_div() that accepts two numbers and returns their quotient. Write a main function that calls this function to display the results. Your program should allow the user to enter 2 integer values.

Sample Output:

```
Enter Number 1: 5

Enter Number 2: 2

Quotient is: 2.5
```

Question 3: write a C++ program which works as a basic calculator. Make a function calculator() that accepts two integer values and a character value. Your function should perform the operation on the entered integer values depending on the character value entered by the user and return the output to main().

Make sure to create separate functions of sum, subtraction, multiplication and division. The function calculator should be able to call the necessary function as required.

Sample Output:

```
Enter Number 1: 100

Enter Number 2:

2 Enter

Character: -
```

Task-4: Write a C++ program to evaluate the following expression using the same implemented functions as above. Also make sure to use find_mul(int,int) where ever you feel the need to calculate square instead of creating a separate function for square. As you have observed above that square is also a multiplication not between two different numbers but the same numbers.

$$a^2 + b^2$$

To evaluate the above expression, you can only use following functions and no other function should be created:

```
int
calcMul(int,int);
int
calcSum(int,int);
```

Sample Output:

```
Enter a: 10

Enter b: 2

Result is: 104
```

Task-5: Write a C++ program to evaluate the following expression using the find_mul(int,int) function. And print the result through main.

$$3ab$$

Sample Output:

```
Enter a: 10

Enter b: 2

Result is: 60
```

Task-6: Write a C++ program to evaluate the following expression using the same implemented functions as above.

$$3^2 + a^2 + b + 3ab$$

To evaluate the above expression, you can only use following functions and no other function should be created:

```
int
calcMul(int,int);
int
calcSum(int,int);
```

Sample Output:

```
Enter a: 10
Enter b: 2
Result is: 171
```

a) Use the above function of sum which you have created in task-03. Now, using the same function you have to calculate sum of two arrays separately and display the results of each on screen from main.

Sample Output:

```
Array1:2 3 4 5 6 1 2 1 2
Array2:2 3 1 2 1 3 1
Sum of array1 is:
26 Sum of array 2
```

b) Make a function findmax that accepts the sum of a of two arrays (calculated in previous step and finds the maximum of them.

Sample Output:

```
Maximum value is: 26
```

c) Make a function 'void update(int a[],int,int) that accepts an array, size and maximum value(i.e.26) and update array values by subtracting from maximum value.

Sample Output:

```
Array1:24 23 22 21 20 25 24 25 24
Array2:24 23 25 24 25 23 25
```

Task 8:
Make a program that takes full name from user. Make a function check() that accepts the name. Function should display the index of vowels and return the total number of vowel present in array. To calculate the total number of vowels you can use the function of sum previously implemented.

Sample Output

```
Enter Full name: ali

ahmad Vowel is at index:

0 2 4 7

Total vowel: 4
```