**Assignment-1:-**

Write a program that will print your grade when you enter your exam score. The program should use the following grading system:

.......Use " if, else if and else "- condition......

Grade & Score range   
A [85-100)A- [80-85)B+ [75-80)B [70-75)B- [65-70)C+ [60-65)C [55-60)C- [50-55)D+ [45-50)D [40-45)F [0-40)

**Assignment 2 :-**

Design a Program that will take a number input for temperature (Could be interger or floating point number) and give the output as shown in the table.  
Use If, Else if and Else

45 or more - Kill Yourself 40-45 degrees - Extremely Hot 35-40 degrees - Very Hot 30-35 degrees – Hot 25-30 degrees - Mildly Hot 20-25 degrees – Normal 15-20 degrees - Mildly Cold 10-15 degrees – Cold 5-10 degrees - Very Cold 0-5 degrees - Extremely Cold 0 or less - Freeze to Death

EXAMPLE::   
Input: 43  
Output: Extremely Hot

Input: -6  
Output: Freeze to Death,

**Assignment-3:**

Write a program that finds the 2nd maximum variable of the three inputs taken...

\*\*Use nested if\*\*  
(e.g)  
Input: 3 4 5  
output: Second Max is 4.

**Assignment-4:**

IF 'a' equals 7 and IF 'b' equals 7, then OUTPUT is "SUCCESS"

IF 'a' equals 7 and IF 'b' is greater than 7, then OUTPUT is "MORE SUCCESS"

IF 'a' equals 7 and IF 'b' is NOT equal to 7 or not greater than 7, then OUTPUT is "FAILURE"

IF 'a' is NOT equal to 7, then OUTPUT is "FAILURE"

Condition: NO AMPERSAND ALLOWED.

**Assignment 5:-**

(1\*x^1)/1 + (2\*x^3)/4 + (3\*x^5)/7 = SUM

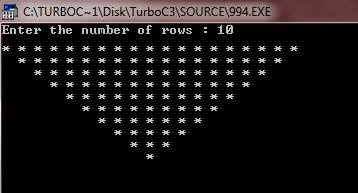
Construct a Code, where the user will input x and n (which is the number of terms that the series will add ). The power will increase according to the question above, so will the denominator  
which will divide each number according to the pattern above. Output The Sum.

Example:

(1\*2^1)/1 + (2\*2^3)/4 + (3\*2^5)/7 = 19.71

**Assignment-6 :-**

User will input the height of the pyramid. And the program will print an upside   
down pyramid as shown in the picture.

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**Assignment-7 :-**

Find the Given number is palindrome number or not…

**Assignment 8 :-**

Write a program that will output the Fibonacci series till the nth term.   
Where n is the input from the user.

Example :   
Number of terms: 8  
Output: 0 1 1 2 3 5 8 13

**Assignment 9:-**  
1) Create an array of size 100...  
2) Fill the array with random numbers...  
3) Find the maximum number within the random numbers...

**Assignment 10: -**

The third array (Array C) of a program will display the sum of the correspondents of the first two arrays (Array A and Array B).

Example:   
A: 1 4 2 3 6  
B: 2 3 4 2 1

C: 3 7 6 5 7

**Assignment 11: -**

Use a function to populate an array, display the array, find and print the minimum number of the array, find and print the maximum number of an array, find and print the sum of the array, and calculate and print the average of the array.

**Assignment 12 :-**

Take an input in the main, and compute the factorial inside a function and return the function. (Output the result in the main)

Example:   
5! = 5\*4\*3\*2\*1 = 120

**Assignment 13:-**

Create an Array of any size and sort it in a function.  
Find and return the median in another function and return it.

**Assignment 14 :-**  
  
1) Use functions to Create a 2D Array..  
2) Populate the array with random numbers..  
3) Display the max number in the array and its position..  
(p.s) Use only one function...  
Example:  
For the picture attached the program should display,  
Max: 5 position 2,3

**Assignment 15 :-**  
  
1) Use functions to create a 2D array..  
2) Populate the array with random numbers..  
3) Find the summation of the "rows" and display(print)..  
For Example, the program should be able to print like this:  
Row 0 : 6  
Row 1 : 10  
Row 2 : 14...

(p.s) The function should be like this,  
findSumInRow(A, .... , 0)  
\*\*If last parameter is 0, then it returns 6  
\*\*If last parameter is 1, then it returns 10

**Assignment 16 :-**  
Write a function using strings and take input from the user to check whether the given input is palindrome or not and display(print) it...  
For example:  
\*\* Input- 12321, MOM..  
Output- Palindrome..  
\*\* Input- 12312, Becky..  
Output- Not a Palindrome..  
(p.s) \*\*You are not allowed to use the "reverse" function of the string library\*\*

**Assignment 17 :-**

Sample input:

Please Enter 2 numbers with an operator between them : 10+123

Sample Output: 10+123=133

Hints:  
\* find the location of the operator   
\* find the numbers on both side of the operators  
\* use atoi and execute

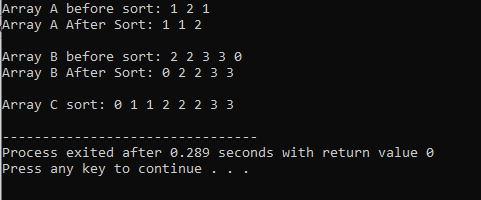
**Assignment 18:-**

Count number of vowels(small letters) in string.

Sample input: Count number of vowels(small letters) in string.  
Sample output : 9 vowels

**Assignment 19:-**

With a given 2 array, find the sort of number and combine it in one whole array list.



**Assignment 20:-**

Write a program that will take the radius of a circle from the user. Then it will compute and print the area and perimeter of the circle.

**Assignment 21:-**

Write a program that converts the days in to month and years. Here the user supplies the number of days. For example, if the user enters 813 days, the program should print: 2 years 2 months 23 days. (don’t worry about leap year).

**Assignment 22:-**

Write a program that inputs number of cents (from 0 to 99) and outputs the minimal number of pennies (1 cent), nickels (5 cents), dimes (10 cents) and quarters (25 cents) with the same value. For example, 94 cents is the same as 3 quarters, 1 dime, 1 nickel, and 4 pennies.

**Assignment 23:-**

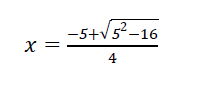
Write a program that inputs a number of hours and outputs the equivalent number of weeks, days, and hours. For example, an input of 4000 would output 23 weeks, 5 days and 16 hours.

**Assignment 24:-**

Write a program that prompts the user for the current year and the user's current age. It then calculates and prints the user’s birthyear.

**Assignment 25:-**

Write a program to compute and print the value of *x* in the following equation. (Hint: use pow() and sqrt() functions and don’t forget to include <cmath>).



**Assignment 26:-**

Write a program to find whether a number is odd or even.

**Assignment 27:-**

Write a program that takes integer inputs from 0 to 10 and displays the number in words. Example: if the user enters 5, the program should print Five.

**Assignment 28:-**

Write a program to check if a year is leap year or not. Use the following algorithm:

**if** (*year* is not divisible by 4) **then** (it is a not a leap year) **elseif** (*year* is not divisible by 100) **then** (it is a leap year) **elseif** (*year* is not divisible by 400) **then** (it is a not a leap year) **else** (it is a leap year)

**Assignment 29:-**

Find the LCM and HFC of given two numbers.

**Assignment 30:-**

Take two integers from the user. Fill an integer array with random values between the numbers given by the user. Print the array. Find the sum of the even number and odd number exist in the array.

**Assignment 31:-**

Fill an integer array with random values than take input of value and find the location in the array list. (Process is called binary search).

**Assignment 32: -**

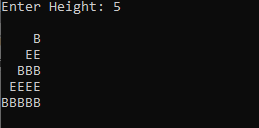
The third array (Array C) of a program will display the substraction of the correspondents of the first two arrays (Array A and Array B).

Example:   
A: 1 4 2 3 6  
B: 2 3 4 2 1

C: 1 1 2 1 5

**Assignment 33: -**

User will input the height of the right-angled triangle where “B” and “E” as it is display below.

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**Assignment 34: -**

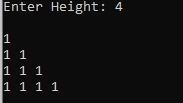
Fill an integer array of size 100 with random numbers. Find the largest and smallest number.

**Assignment 35: -**

Fill an integer array of size 100 with random numbers. Find the sum and average value from the array.

**Assignment 36: -**

User will input the height of the right-angled triangle where “1” as it is display below.



**Assignment 37: -**

Find whether the number is positive or negative using loop operations and keep the count of number found from a given term.

**Assignment 38: -**

Create a email validation with the string.

**Assignment 39: -**

Find a string whether it is Palindrome or not.

**Assignment 40: -**

Convert a string from upper to lower and lower to upper.

**Assignment 41: -**

Using a given Id as string find admission year, semester and unique id.

Example:

Input: ID: 1230122

Output: Year: 2012 Semester: Autumn ID: 0122

**Assignment 42: -**

Enter a string and find the location of word in the string array.

**Assignment 43: -**

Create a 2D array and find the summation and average using it.

**Assignment 44: -**

Sort a array using bubble sort.

**Assignment 45: -**

Swap the location of a given array elements.