

1. Write a C++ program using function to print following pattern :

```
1
1      2
1      2      3
1      2      3      4
1      2      3      4      5
```

2. Write a C++ program using function to print following pattern :

```
A
A      B
A      B      C
A      B      C      D
A      B      C      D      E
```

3. Write a C++ program using function to check a entered no. is Prime or Not.
4. Write a C++ program using function to Print all prime numbers between two numbers entered by user.
5. Write a C++ program using function to print the factorial of entered no.
6. Write a C++ program using function which accepts two intger parameter and swap values of variables through Call-by-Value.
7. Write a C++ program using function which accepts two intger parameter and swap values of variables through Call-by-Reference.
8. Write a complete C++ program using function to calculate the area of a circle & rectangle.
9. Write a complete C++ program to check whether the given number is palindrome or not.
10. Write a complete C++ program to print the sum of the given series.  
 $1^2 + 3^2 + 5^2 + \dots + n^2$
11. Write a complete C++ program to print the sum of the given series.  
 $X^0 + X^1 + X^2 + X^3 \dots + X^n$
12. Write a complete C++ program to print 5 different random nos. between two different nos. entered by user at run time.
13. Write a complete C++ program that invokes a function which accepts three values for principal amt, rate and time and returns the Compound interest.  
 $A = P(1+r/100)^t$                       A = Total Amount (Principal+Interest)
14. Write a complete C++ program that invokes a function which intakes two integers and an arithmetic operator and prints the corresponding result.
15. Write a complete C++ program that invokes a function satis( ) to find whether four integers a, b, c, d sent to satis( ) satisfy the equation  $a^3 + b^3 + c^3 = d^3$  or not. The function returns 0 if the above equation is satisfied with the given four numbers otherwise it returns -1.