11. **https://www.geeksforgeeks.org/print-all-prime-numbers-less-than-or-equal-to-n/**

```
#include <bits/stdc++.h>
using namespace std;

bool isPrime(int n)
{
	if (n <= 1)
		return false;
	if (n <= 3)
		return true;

	if (n % 2 == 0 || n % 3 == 0)
		return false;

	for (int i = 5; i * i <= n; i = i + 6)
		if (n % i == 0 || n % (i + 2) == 0)
			return false;

	return true;
}

void printPrime(int n)
{
	for (int i = 2; i <= n; i++) {
		if (isPrime(i))
			cout << i << " ";
	}
```

```
}

int main()
{
        int n = 100;
        printPrime(n);
}
```

12. https://practice.geeksforgeeks.org/problems/number-pattern0517/1

MySolution:

```
vector<string> numberPattern(int N)
   {

      vector<string>v;

      for(int i=1;i<=N;i++)
      {
         string temp="";int j=1;
         for( j=1;j<=i;j++)
         {  cout<<j;
         }

          for(int k=j-2;k>=1;k--)
          {
              cout<<k;
          }


          cout<<" ";
      }
```

```
    return v;
}
```

Gfg_Solution:

```
class Solution
{
public:
    string int_to_string(int x){
        string ans;
        while(x){
            ans.push_back(char(x%10)+'0');
            x/=10;
        }
        reverse(ans.begin(), ans.end());
        return ans;
    }

    vector<string> numberPattern(int N)
    {
        vector<string> res;
        for(int i = 1 ; i <= N ; i++){

            string temp;

            for(int j = 1 ; j <= i ; j++){
                temp+=int_to_string(j);
            }

            for(int j = i-1 ; j >= 1 ; j--){
                temp+=int_to_string(j);
            }

            res.push_back(temp);
        }
        return res;
    }
```

```
};
```

Close

13. https://www.geeksforgeeks.org/program-to-print-pyramid-pattern/
14. https://practice.geeksforgeeks.org/problems/pascal-triangle0652/1

15. Help Manmohan to print pattern of a given number. See the output pattern for given input n = 5.

Input Format
Single integer N denoting number of lines of the pattern.
Constraints
N<=1000
Output Format
Pattern.
Sample Input
5
Sample Output
1
11
202
3003
40004
Explanation
If row number is n (>1), total character is n. First and last character is n-1 and rest are 0.

16. https://practice.geeksforgeeks.org/problems/inverted-triangle-of-stars0110/1
17. https://www.geeksforgeeks.org/program-to-print-the-ladder-pattern/
18. https://www.geeksforgeeks.org/program-to-print-double-headed-arrow-pattern/