

## Pattern Printing - 1 | Week 3

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**Q1.** Print the following pattern

1 1 1 1

2 2 2 2

3 3 3 3

4 4 4 4

```
#include<iostream>
using namespace std;
int main( ) {
int n;
cout<<"enter a number:";
cin>>n;
for(int i=1;i<=n;i++){
    for(int j=1;j<=n;j++){
        cout<<i<<" ";
    }
    cout<<endl;
}
    return 0;
}
```

**Q2** Print the following pattern

Input: n = 4

Output:

1 2 3 4

1 2 3

1 2

1

```
#include<iostream>
using namespace std;
int main( ) {
int n;
cout<<"enter a numbr:";
cin>>n;
```

```

    for(int i=1;i<=(n);i++){
        for(int j=1;j<=(n-i+1);j++){
            cout<<j<<" ";
        }
        cout<<endl;
    }
return 0;
}

```

**Q3. Print the following pattern**

**Input: n = 4**

**Output:**

**A**

**A B**

**A B C**

**A B C D**

```

#include<iostream>
using namespace std;
int main( ) {
    int n ;
    cout<<"enter a numbr:";
    cin>>n;
    for(int i=0;i<n;i++){
        for(int j=0;j<=i;j++){
            char k=65+j;
            cout<<k<<" ";
        }
        cout<<endl;
    }
return 0;
}

```

**Q4. Print the following pattern**

**Input: n = 4**

**Output:**

**1**

A B

1 2 3

A B C D

1 2 3 4 5

```
#include<iostream>
using namespace std;
int main( ) {
int n ;
cout<<"enter a numbr:";
cin>>n;
for(int i=1;i<=n;i++){
    for(int j=1;j<=i;j++){
        char k=65+j-1;
        if(i%2!=0)
            cout<<j<<" ";
        else

            cout<<k<<" ";
    }
    cout<<endl;
}
return 0;
}
```

**Q5. Print the following pattern**

**Input n = 4**

**Output:**

\*

\*\*

\*\*\*

\*\*\*\*

\*\*\*

\*\*

```
#include<iostream>
```

```

using namespace std;
int main( ) {
int n ;
cout<<"enter a numbr:";
cin>>n;
for(int i=1;i<=(2*n-1)/2+1;i++){
    for(int j=1;j<=i;j++){
        cout<<"*";
    }
    cout<<endl;
}
for(int i=1;i<=(2*n-1)/2;i++){
    for(int j=1;j<=(n-i);j++){
        cout<<"*";
    }
    cout<<endl;
}
return 0;
}

```

**Q6. Print the following pattern**

**Sample Input : m = 4, n = 6**

**Sample Output :**

\*\*\*\*\*

\* \*

\* \*

.....

```

#include <iostream>
using namespace std;
int main() {

    int m, n;
    cin >> m >> n;

    for(int i = 0; i < m; ++i) {
        for(int j = 0; j < n; ++j) {
            if((i == 0 || j == 0) || (i == m-1 || j == n-1)) {
                cout << "* ";
            } else {
                cout << " ";
            }
        }
        cout << endl;
    }
}

```

```
}  
a  
return 0;  
}
```

**Q7. Print the following pattern**

**Sample Input : n = 4**

**Output :**

\*\*\*\*

\*\*\*\*

\*\*\*\*

```
.....  
#include <iostream>  
using namespace std;  
int main() {  
  
    int n;  
    cin >> n;  
    for(int i = 0; i < n; ++i) {  
        for(int j = 0; j < n-i; ++j) {  
            cout<<" ";  
        }  
        for(int j=0;j<n;j++){  
            cout<<"*";  
        }  
        cout<<endl;  
    }  
    return 0;  
}
```

**Q8. Print the following pattern**

**Sample Input : n= 4**

**Output :**

1

1 2

1 2 3

**1 2 3 4**

```
#include<iostream>
using namespace std;
int main( ) {
int n;
cout<<"enter a numbr:";
cin>>n;
    for(int i=1;i<=(n);i++){
        for(int j=1;j<=(i);j++){
            cout<<j<<" ";
        }
        cout<<endl;
    }
return 0;
}
```

**Q9. Print the following pattern**

**Input : n = 4**

**Output :**

**A**

**A B**

**A B C**

**A B C D**

```
#include <iostream>
using namespace std;
int main() {

    int n;
    cin >> n;

    for(int i = 0; i < n; ++i) {
        for(int j = 0; j < n-i-1; ++j) {
            cout << " ";
        }
        for(int j = 1; j <= i+1; ++j) {
            cout << (char)('A' + j - 1) << " ";
        }
        cout << endl;
    }
}
```

```
return 0;  
}
```

**Q10. Print the following pattern**

**Input: n = 4**

**Output:**

**1**

**2 1**

**3 2 1**

**4 3 2 1**

```
#include<iostream>  
using namespace std;  
int main( ) {  
int n;  
cout<<"enter a numbr:";  
cin>>n;  
    for(int i=1;i<=(n);i++){  
        for(int j=1;j<=(i);j++){  
            cout<<i-j+1<<" ";  
        }  
        cout<<endl;  
    }  
return 0;  
}
```

**Q11. Print the following pattern**

**Input: n = 4**

**Output:**

**\***

**\*\***

**\*\*\***

**\*\*\*\***

**\*\*\***

\*\*

\*

```
#include <bits/stdc++.h>
using namespace std;
int main() {

    int n;
    cin >> n;

    // Printing upper triangle
    for(int i = 0; i < n; ++i) {
        for(int j = 0; j < n-i-1; ++j) {
            cout << " ";
        }
        for(int j = 0; j <= i; ++j) {
            cout << "* ";
        }
        cout << endl;
    }

    // Printing lower triangle
    for(int i = 0; i < n-1; ++i) {
        for(int j = 0; j <= i; ++j) {
            cout << " ";
        }
    }
    return 0;
}
```