



SKILLS

C++ Assignments | Pattern Printing - 1 | Week 3

1 print the following pattern

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

Ans

```
# include <iostream>

Using namespace std;

int main () {

int n;

cin>>n;

for (int i=1; i<= n; i++) {

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

cout<<" i" << " "<<endl;

}

}
```

2 Print the following pattern

Input: n = 4

Output

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

Ans

```
# include <iostream >
```

Using namespace std;

```
int main () {  
int n;  
  
cin>>n;  
  
for (int i=1; i<=n; i++) {  
for (int j=1; j<=n-i+1; j++) {  
  
cout<<" j "<<" "<<endl;  
  
}  
  
}
```

3 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=1; i<=n; i++) {  
for (int j=1; j<=i; j++) {  
  
cout<<(char) ('A'+j-1) <<" "<<endl;  
  
}  
  
}
```

4 Print the following pattern

Input: n = 4

Output:

1

A B

1 2 3

A B C D

1 2 3 4 5

Ans

```
# include <iostream>
using namespace std;
int main () {
int n;
cin >> n;
for (int i=1; i<=n; i++) {
if(i%5==0);
for (int j=1; j<=i; j++) {
cout<<j<<" "<<endl;
}
else
for (int j=1; j<=i; j++) {
cout<<(char) ('A' -j+1) <<" "<< endl;
}
}
```

5 Print the following pattern

Input n = 4 Output

```
*
* *
* * *
* * * *
* * *
* *
*
```

Ans

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

```

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

```

6 Print the following pattern

Sample Input : m = 4, n = 6

Sample Output :

* *

* *

Ans

```
# include <iostream>
```

```
using namespace std;
```

```
int main () {
```

```
int n, m;
```

```
cin>>n>>m;
```

```
for (int i=0; i<=n; i++){
```

```
for (int j=0; j<=m; j++){
```

```
if (i==0; || j==0; || i==n-1 || j==m) {
```

```
    cout<< "*" << endl;
```

```
else
```

```
cout<<" " <<endl;
```

```
}
```

```
}
```

7 Print the following pattern

Sample Input : n = 4

Output :

Ans

```

#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<<" "<< endl;

}

}

for (int j=0; j<n; j++) {

cout<<"*"<<endl;

}

}

```

8 Print the following pattern

Input: n = 4

Output:

```

      A
    A B
  A B C
A B C D

```

Ans

```

#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<<" "<<endl;

}

}

for (int j=0; j<i+1; j++) {

cout<< (char) ('A'+i-1) <<" "<<endl;

}

}

```

9 Print the following pattern

Sample Input : n= 4

Output

1

1 2

1 2 3

1 2 3 4

Ans

```
# 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<<" "<<endl;
        }
    }
    for (int j=0; j<i+1; j++) {
        cout<< j<<" "<<endl;
    }
}
```

10 Print the following pattern

input: n = 4

Output:

1

2 1

3 2 1

4 3 2 1

Ans

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

```

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

```

11 Print the following pattern

Input n = 4 Output

```

*
* *
* * *
* * * *
* * *
* *
*

```

Ans

```

# include <iostream>
using namespace std;
int main () {
int n;
cin>> n;
for (int i=0; i<=n; i++) {
    for (int j=1; j<=i;j++){
        cout<<" * "<<endl;
    }
}

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

```

