

C++ PATTERNS PROGRAMS

1) Diamond Pattern

2) Pascals Triangle Program

```
Run | Save
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     int n;
7     cout<<"Enter the value of n:"<<"\n";
8     cin>>n;
9     for(int i = 1; i <= n; i++)
10    {
11        for(int j = i; j < n; j++)
12            cout << " ";
13        for(int j = 1; j <= i; j++)
14            cout << j;
15        for(int j = i-1; j >= 1; j--)
16            cout << j;
17
18        cout << endl;
19    }
20
21    return 0;
22 }
23
```

5

Enter the value of n:
1
121
12321
1234321
123454321

3) Right Triangle Program

Run Save Changes Updated, Saved 3s

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     int n;
7     cout<<"Enter the value of n:"<<endl;
8     cin>>n;
9
10    for(int i = 1; i <= n; i++)
11    {
12        for(int j = 1; j <= i; j++)
13        {
14            cout << i;
15        }
16        cout << endl;
17    }
18
19    return 0;
20 }
```

5

Enter the value of n:
1
22
333
4444
55555

4) Pattern Printing Using Nested Loops

Run Save Changes Updated, Saved 3s

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     int n = 5;
7
8     for(int i = 1; i <= n; i++)
9     {
10
11         for(int j = i; j < n; j++)
12             cout << " ";
13         int num = i;
14         for(int j = 1; j <= i; j++)
15             cout << num++;
16
17         num -= 2;
18         for(int j = 1; j < i; j++)
19             cout << num--;
20
21         cout << endl;
22     }
23
24 } return 0;
25 }
```

Your INPUT go's here! Give only values. do not give like a=10

1
232
34543
4567654
567898765