

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
/*
```

```
//=====1=====
```

```
int i,j;
```

```
for(i=0;i<3;i=i+1)
```

```
{
```

```
for(j=0;j<5;j=j+1)
```

```
{
```

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

```
}
```

```
cout<<endl;
```

```
}
```

```
//-----output-----
```

```
* * * * *
```

```
* * * * *
```

```
* * * * *
```

```
//2=====
```

```
cout<<"entrer a number :";
```

```
int a,i,j;
```

```

cin>>a;

for(i=0;i<a;i++)
{
    for(j=0;j<a;j++)
    {
        cout<<" * ";

    }

    cout<<endl;
}

//-----output-----

```

```
* * * * *
```

```
* * * * *
```

```
* * * * *
```

```
* * * * *
```

```
* * * * *
```

```
//3=====
```

```
cout<<"enter the number:";
```

```
int n;
```

```
cin>>n;
```

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

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

```
        if(row==0|| row==n-1||col==0||col==n-1){
```

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

```
        }
```

```
    else{
```

```

        cout<<" ";

    }

}

cout<<endl;

}

//-----output-----

```

enter the number:5

```

* * * * *

*      *

*      *

*      *

* * * * *

```

```

//4=====

```

```

cout<<"enter row and coiums";

int r,c;

cin>>r;

cin>>c;

for(int row=0; row<r; row=row+1){

    if(row == 0 || row == r-1){

        for(int col=0; col<c; col++){

            cout<< "* ";

        }

    }

    else{

        cout<< "* ";
    }
}

```

```

for(int i=0; i<c-2; i=i+1){

    cout<< " ";

}

cout<< "* ";

}

cout << endl;

}

```

//-----output-----

enter row and coiums 5

10

* * * * *

* *

* *

* *

* * * * *

//5===== new program haif trigel=====

```

cout<<"enter a number";

```

```

int a;

```

```

cin>>a;

```

```

for(int row=0;row<a;row++)

```

```

{

```

```

    for(int col=0;col<row+1;col++){

```

```

        cout<<" * ";

```

```

    }

```

```

    cout<<endl;

```

```

}

```

```
//-----output-----
```

```
enter a number5
```

```
*
```

```
* *
```

```
* * *
```

```
* * * *
```

```
* * * * *
```

```
//6=====revers trangals=====
```

```
cout<<"enter a numeber :";
```

```
int a;
```

```
cin>>a;
```

```
for(int row=0;row<a;row++)
```

```
{
```

```
    for(int col=0;col<a-row;col++)
```

```
    {
```

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

```
    }
```

```
cout<<endl;
```

```
}
```

```
//-----output-----
```

```
enter a numeber :5
```

```
* * * * *
```

```
* * * *
```

```
* * *
```

```
* *
```

*

```
//7=====number trees =====
```

```
cout<<"enter a number:";
```

```
int a;
```

```
cin>>a;
```

```
for( int row=0; row<a; row++){
```

```
    for( int col=0; col<a-row; col++){
```

```
        cout<< col+1 ;
```

```
    }
```

```
    cout<<endl;
```

```
}
```

```
//-----output-----
```

```
enter a number:5
```

```
12345
```

```
1234
```

```
123
```

```
12
```

```
1
```

```
//8===== number tree=====
```

```
cout<<"enter a number:";
```

```
int a;
```

```
cin>>a;
```

```
for( int row=0; row<a; row++){
```

```
    for( int col=0; col<row+1; col++){
```

```
        cout<< col+1 ;
```

```
}  
  
cout<<endl;  
  
}  
  
//-----OUTPUT-----
```

enter a number:5

1
12
123
1234
12345

```
//9=====piramid =====
```

```
cout<<"enter a number:";  
  
int n ;  
  
cin>>n;  
  
for(int row=0; row<n; row++){  
    for(int col=0; col<n-row; col++){  
        cout<<" ";  
    }  
  
    for(int col=0; col<row+1; col++){  
        cout<<"* ";  
    }  
  
    cout<<endl;  
  
}
```

```
//-----output-----
```

enter a number:5

*

* *

* * *

* * * *

* * * * *

//10=====INNVERTERD PRIMIDS=====

cout<<"enter a number:";

int n ;

cin>>n;

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

for(int col=0; col<row+1; col++){

cout<<" ";

}

for(int col=0; col<n-row; col++){

cout<<"* ";

}

cout<<endl;

}

//----output-----

enter a number:5

* * * * *

* * * *

* * *

* *

*


```
//11=====diamand =====
```

```
cout<<"enter the number :";
```

```
int a;
```

```
cin>>a;
```

```
for(int row=0;row<a; row++){
```

```
    for(int col=0; col<a-row; col++){
```

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

```
    }
```

```
    for(int col=0; col<row+1; col++){
```

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

```
    }
```

```
    cout<<endl;
```

```
}
```

```
for(int row=0;row<a; row++){
```

```
    for(int col=0; col<row+1; col++){
```

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

```
    }
```

```
    for(int col=0; col<a-row; col++){
```

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

```
    }
```

```
    cout<<endl;
```

```
}
```

```
//-----output-----
```

```
enter the number :5
```

```
    *
```

```
  * *
```

* * *

* * * *

* * * * *

* * * * *

* * * *

* * *

* *

*

//12===== holo DIAMAND =====

cout<<"enter the number:";

int n;

cin>>n;

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

 //for spaces

 for(int col=0;col<n-row-1; col++){

 cout<<" ";

 }

 //for star

 for(int col=0;col<2*row+1; col++){

 if(col==0) {cout<<"* ";;}

 else if(col==2*row) { cout<<"* ";;}

 else{ cout<<" ";;}

 }

 cout<<endl;

}

*

* *

* *

* *

* *

* *

* *

* *

* *

*

```
//13===== full doimand outer hole diamnd=====
```

```
cout<<"enter a number :";
```

```
int n;
```

```
cin>>n;
```

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

```
    for(int col=0; col<n-row; col++){
```

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

```
    }
```

```
    for(int col=0; col<2*row+1; col++){
```

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

```
    }
```

```
    for(int col=0; col<n-row; col++){
```

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

```
    }
```

```
    cout<<endl;
```

```
}
```

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

```
    for(int col=0;col<row+1; col++){
```

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

```
    }
```

```
    for(int col=0;col<2*n-2*row-1; col++){
```

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

```
    }
```

```
    for(int col=0;col<row+1; col++){
```

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

```
}
```

```

    cout<<endl;

}

//-----output-----

```

enter a number :5

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

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

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

```
**    **
```

```
*     *
```

```
*     *
```

```
**    **
```

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

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

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

```
//14=====
```

```
cout<<"enter a number:";
```

```
int n;
```

```
cin>>n;
```

```

for(int row=0; row<n; row++){
    for(int col=0; col<row+1; col++){
        cout<<row+1;

        if(col !=row){
            cout<<"*";
        }
    }
}

```

```

    cout<<endl;

}

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

    for(int col=0; col<n-row; col++){

        cout<<n-row;

        if(col !=n-row-1){

            cout<<"*";

        }

    }

    cout<<endl;

}

```

//----- out put-----

1

2*2

3*3*3-->

//15=====

```

cout<<"enter a value :";

```

```

int n;

```

```

cin>>n;

```

```

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

    int col;

    for( col=0; col<row+1; col++){

        int ans=col+1;

        char ch=ans+'A'-1;
    }
}

```

```

    cout<<ch;
}
for(col=col-1; col>=1; col--){
    int ans=col;
    char ch=ans+'A'-1;
    cout<< ch;
}
cout<<endl;
}

```

-----output-----

```

A
ABA
ABCBA
ABCD CBA

```

//16=====FULL PRIAMISD WITH NUMBER

=====

```

cout<<"enter a number :";

int n;

cin>>n;

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

    for(int col=0; col<row+1; col++){

        cout<<col+row+1<<" ";

    }

    cout<<endl;
}

```

```
}
```

```
//-----out put -----
```

```
1
```

```
23
```

```
345
```

```
4567
```

```
//17===== or with full primid number =====
```

```
cout<<"enter the number :";
```

```
int n ;
```

```
cin>>n;
```

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

```
    for(int col=0; col<n-row; col++){
```

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

```
    }
```

```
    for(int col=0; col<row+1; col++){
```

```
        cout<<col+row+1<<" ";
```

```
    }
```

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

```
}
```

```
// -----out put -->-----
```

```
enter the number :5
```

```
1
```

```
2 3
```


3 4 5

4 5 6 7

5 6 7 8 9

//18===== NUW ROGRAM WITH THE NUMBER =====

```
cout<<"enter the number :";
```

```
int n ;
```

```
cin>>n;
```

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

```
    for(int col=0; col<n-row; col++){
```

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

```
    }
```

```
    for(int col=0; col<row+1; col++){
```

```
        cout<<col+row+1<<" ";
```

```
    }
```

```
    int l=2*row;
```

```
    for(int col=0; col<row; col++){
```

```
        cout<<l<<" ";
```

```
        l--;;
```

```
    }
```

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

```
}
```

//-----OUTPUT-----

enter the number :5

1

2 3 2

3 4 5 4 3

4 5 6 7 6 5 4

5 6 7 8 9 8 7 6 5

//19=====holo priamid with number=====

```
cout<<"enter a number :";
```

```
int n;
```

```
cin>>n;
```

```
int col;
```

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

```
    for( col=0; col<n-row; col++){
```

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

```
    }
```

```
    int l=1;
```

```
    for( col=0; col<2*row+1; col++){
```

```
        if(row==0||row==n-1){
```

```
            if(col %2==0){ cout<<l;l++;}
```

```
            else{cout<<" ";}
```

```
        }
```

```
    else {
```

```
        if(col==0){cout<<"1";}
```

```
        else if(col==2*row+1-1){cout<<row+1;}
```

```
        else{cout<<" ";}
```

```

    }
}
cout<<endl;
}
//----out put is --->>>>>>>>>>

enter a number :5

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

//20=====holow inverted half primid=====

```

```

cout<<"enter a number :";
int n;
cin>>n;

int row,col;
for( row=0; row<n; row++){
    for(col=0; col<n-row; col++){
        if(row==0|| row==n-1){
            cout<<"* ";

        }

        else if(col==0 ||col==n-row-1){
            cout<<"* ";

```

```

    }

    else{

        cout<<" ";

    }

}

cout<<endl;

}

//-----out put -----

```

enter a number :5

```

* * * * *

```

```

*      *

```

```

*  *

```

```

* *

```

```

*

```

```

//21=====half doamand=====

```

```

cout<<"enter the number:";

```

```

int n;

```

```

cin>>n;

```

```

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

    for(int col=0; col<row+1; col++){

        cout<<"* ";

    }

}

```

```

cout<<endl;

```

```

}

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

    for(int col=0; col<n-row-1; col++){

        cout<<"* ";

    }

    cout<<endl;

}

```

//-----output-----

enter the number:5

```

*

* *

* * *

* * * *

* * * * *

* * * *

* * *

* *

*      */

```

}//

