

```
#include<stdio.h>
```

```
/*
```

```
*
```

```
* *
```

```
* * *
```

```
* * * *
```

```
* * * * *
```

```
*/
```

```
int Right_Half_Pyramid1(){
```

```
    for(int row=0;row<5;row++){
```

```
        for(int col=0;col<5;col++){
```

```
            if(row>=col){
```

```
                printf("* ");
```

```
            }
```

```
            else{
```

```
                printf(" ");
```

```
            }
```

```
        }
```

```
        printf("\n");
```

```
    }
```

```
}
```

```
int Right_Half_Pyramid(){
```

```
    for(int row=0;row<5;row++){
```

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

```
            printf("* ");
```

```
        }
        printf("\n");
    }
}
```

```
int Right_Half_Pyramid_numbers(){
    for(int i=0;i<5;i++){
        for(int j=0;j<=i;j++){
            printf("%d ",j+1);

        }
        printf("\n");
    }
}
```

```
int Right_Half_Pyramid_numbers1(){
    for(int i=0;i<5;i++){
        for(int j=0;j<5;j++){
            if(i>=j){
                printf("%d ",j+1);
            }
            else{
                printf(" ");
            }
        }
        printf("\n");
    }
}
```

```
int Right_Half_Pyramid_characters(){
    for(int i=0;i<5;i++){
        for(int j=0;j<=i;j++){
```

```

        printf("%c ", 'A'+j);
    }
    printf("\n");
}
}

```

```

int Right_Half_Pyramid_characters1(){
    for(int i=0;i<5;i++){
        for(int j=0;j<5;j++){
            if(i>=j){
                printf("%c ", 'A'+j);
            }
            else{
                printf(" ");
            }
        }
        printf("\n");
    }
}

```

// 2) programs

/*

```

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

```

*/

```

int Left_Half_Pyramid(){
    for(int i=0;i<5;i++){
        for(int j=0;j<2*(5-i)-2;j++){
            printf(" ");
            // printf("%d",j<2*(5-i));
        }
        for(int k=0;k<=i;k++){
            printf("* ");
        }
        printf("\n");
    }
}

```

```

int Left_Half_Pyramid1(){
    for(int i=0;i<5;i++){
        for(int k=0;k<2*(5-i)-2;k++){
            printf(" ");
        }
        for(int j=0;j<5;j++){
            if(i>=j){
                printf("* ");
            }
            else{
                printf(" ");
            }
        }
        printf("\n");
    }
}

/*
*

```

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

```
*/
```

```
int pattern3()  
{  
    for(int i=5;i>0;i--){  
        for(int k=0;k<6;k++){  
            if(i<=k){  
                printf("*");  
            }  
            else{  
                printf(" ");  
            }  
        }  
        printf("\n");  
    }  
}
```

```
/*
```

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

```
*/
```

```
int pattern()
```

```
{
```

```
    for(int i=0;i<5;i++){
```

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

```
            printf(" ");
```

```
        }
```

```
        for(int j=0;j<5-i;j++){
```

```
            printf("*");
```

```
        }
```

```
        printf("\n");
```

```
    }
```

```
}
```

```
/*
```

```
* * * * *
```

```
* * * *
```

```
* * *
```

```
* *
```

```
*
```

```
*/
```

```
int pattern2()
```

```
{
```

```
    for(int i=5;i>0;i--){
```

```
        for(int k=0;k<5;k++){
```

```
            if(i<=k){
```

```
                printf(" ");
```

```

    }

    else{

        printf(" *");

    }

}

printf("\n");

}

}

int pattern21(){

    for(int i=0;i<5;i++){

        for(int j=0;j<5-i;j++){

            printf(" * ");

        }

        printf("\n");

    }

}

```

// Program 5

/*

```

*           *

* *        * *

* * *      * * *

* * * *    * * * *

* * * * *  * * * * *

```

*/

```

int pattern4()
{

    for(int i=0;i<5;i++){
        for(int l=0;l<=i;l++){
            printf("* ");
        }
        for(int j=0;j<2*(5-i)-2;j++){
            printf(" ");
        }
        for(int k=0;k<=i;k++){
            printf(" *");
        }
        printf("\n");
    }
}

```

```

int pattern5(){

    for(int i=0;i<5;i++){
        for(int j=0;j<=i;j++){
            printf("* ");
        }
        for(int j=0;j<2*(5-i)-2;j++){
            printf(" ");
        }
        for(int k=0;k<=i;k++){
            printf("* ");
        }
        printf("\n");
    }
}

```



```
}
```

```
// 10) program
```

```
/*
```

```
    *
```

```
    * *
```

```
    * * *
```

```
    * * * *
```

```
    * * * * *
```

```
*/
```

```
int pattern10(){
```

```
    for(int i=0;i<5;i++){
```

```
        for(int j=0;j<5-i;j++){
```

```
            printf(" ");
```

```
        }
```

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

```
            printf("* ");
```

```
        }
```

```
        printf("\n");
```

```
    }
```

```
}
```

```
// 11) program
```

```
/*
```

```
* * * * *
```

```
* * * *
```

```
* * *
```

```
  * *
```

```
  *
```

```
*/
```

```
int pattern11(){
```

```
    for(int i=5;i>=0;i--){
```

```
        for(int j=0;j<5-i;j++){
```

```
            printf(" ");
```

```
        }
```

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

```
            printf("*");
```

```
        }
```

```
        printf("\n");
```

```
    }
```

```
}
```

```
// 6) program 6
```

```
/*
```

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

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

```
* * * * *
```

```
* * *
```

```
*
```

```
* * *
```

```
* * * * *
```

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

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

```
*/
```

```
int pattern6(){  
    for(int i=9-1;i>=0;i-=2){  
        for(int j=0;j<9-i;j++){  
            printf(" ");  
        }  
        for(int k=0;k<=i;k++){  
            printf("* ");  
        }  
        printf("\n");  
    }  
}
```

```
for(int i=2;i<9;i+=2){  
    for(int j=0;j<9-i;j++){  
        printf(" ");  
    }  
    for(int k=0;k<=i;k++){  
        printf("* ");  
    }  
    printf("\n");  
}
```

```
}
```

```
int main(){  
    //Right_Half_Pyramid();  
    //Right_Half_Pyramid1();  
    //Right_Half_Pyramid_numbers();  
    //Right_Half_Pyramid_numbers1();  
    //Right_Half_Pyramid_characters();  
    //Right_Half_Pyramid_characters1();  
}
```

```
        //Left_Half_Pyramid();
        //Left_Half_Pyramid1();
//    pattern();
//    pattern2();
//    pattern21();
// pattern3();
// pattern4();
//    pattern5();
//    pattern10();
//    pattern11();
        pattern6();
}
```