

Right Shift Triangle Pattern

```
/*-----Documentation Section-----*/
```

```
/* In this section we will make a pattern as showing below. */
```

```
/*  
  
*****  
*****  
*****  
*****  
*****  
*****  
****  
***  
**  
*  
  
*/  
  
/*  
Logic to create this pattern;  
1. first of all make two int variable i and j.  
2. now make a loop (outer loop ) which will act as controlling the position of the  
row.  
3. make i as the counter varaible of the outer loop.  
4. make another loop inside the outer loop, this loop will act as controlling column  
in each rows.  
5. make j as the counter variable of the inner loop.  
6. print one stare in inner loop  
7. print a new line after closing the inner loop  
*/
```

```
/*-----
```

```
PseudoCode:
```

```
    counter i;  
    counter j;
```

```
    for each row in i do:  
        for each column in j do:  
            print *
```

```
        print newline;
```

```
-----*/
```

```
/*-----*/
```

For Current Pattern:

```
counter i;  
counter j;
```

Outer loop will run $i \leq 10$, (initialised from 1), $i++$ in each iteration.

Inner loop will run upto $j \geq i$; (initialised from 10), $j--$ in each iteration.

print * in inner loop.

print \n in Outer loop.

```
-----*/
```

```
/*=====*/
```

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

```
int main(){
```

```
int i; // to hold the index number of row.
```

```
int j; // to hold the index number of column.
```

```
// Outer loop : this will control the rows
```

```
// in each iteration it will change the row and also run the inner loop
```

```
for(i=1; i<=10; i++){
```

```
    // Inner loop: this will control the column in each row.
```

```
    // in each iteration it will print * in columns upto i number
```

```
    // this loop will run in each iteration of Outer loop
```

```
    for(j=10; j>=i; j--){
```

```
        printf("*"); // to print * on columns controlled by inner loop
```

```
    }
```

```
    printf("\n"); // to change the row, controlled by outer loop
```

```
}
```

```
}
```

Left Shift Triangle Pattern

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Logic to create this pattern;  
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    2. now make a loop (outer loop ) which will act as controlling the position of  
the row.  
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column in each rows.  
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    6. print one stare in inner loop  
    7. print a new line after closing the inner loop  
*/
```

```
/*-----
```

```
    PseudoCode:
```

```
        counter i;  
        counter j;  
  
        for each row in i do:  
            for each column in j do:  
                print *
```

```
                print newline;
```

```
-----*/
```

```
/*-----
```

For Current Pattern:

```
counter i;  
counter j;
```

Outer loop will run $i \leq 10$, (initialised from 1), $i++$ in each iteration.

Inner loop will run upto $j \leq i$; (initialised from 10), $j++$ in each iteration.

print * in inner loop.

print \n in Outer loop.

```
-----*/
```

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

```
#include<time.h>
```

```
int main(){
```

```
int i; // i to hold the index number of row.
```

```
int j; // j to hold the index number of column.
```

```
// Outer loop : this will control the rows
```

```
// in each iteration it will change the row and also run the inner loop
```

```
for(i=1; i<=10; i++){
```

```
    // Inner loop: this will control the column in each row.
```

```
    // in each iteration it will print * in columns upto i number
```

```
    // this loop will run in each iteration of Outer loop
```

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

```
        printf("*"); // to print * on columns controlled by inner loop
```

```
    }
```

```
    printf("\n"); // to change the row, controlled by outer loop
```

```
}
```

```
}
```

Right+Left Triangle Pattern

```
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```

```
/* In this section we will make a pattern as showing below. */
```

```

/*
*
**
***
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**
*

*/

/*
    Logic to create this pattern;
    1. first of all make two int variable i and j.
    2. now make a loop (outer loop ) which will act as controlling the position of
the row.
    3. make i as the counter variable of the outer loop.
    4. make another loop inside the outer loop, this loop will act as controlling
column in each rows.
    5. make j as the counter variable of the inner loop.
    6. print one stare in inner loop
    7. print a new line after closing the inner loop

    8. Repeat 2 to 7 steps to make another pattern in different order
*/

```

```
/*-----
```

PseudoCode:

```
    counter i;
    counter j;

    << For above part of the pattern >>
    for each row in i do:
        for each column in j do:
            print *

        print newline;

    << for below part of the pattern >>
    for each row in i do:
        for each column in j do:
            print *

        print newline
```

```
-----*/
```

```
/*-----
```

For Current Pattern:

```
    counter i;
    counter j;

    << for upper part of the pattern >>
    Outer loop will run i<=10, (initialised from 1), i++ in each iteration.
```

Inner loop will run upto j<=i; (initialised from 10), j++ in each iteration.

```
        print * in inner loop.
```

```
    print \n in Outer loop.
```

```
    << for below part of the pattern>>
    Outer loop will run i<=10, (initialised from 1), i++ in each iteration.
```

Inner loop will run upto j>=i; (initialised from 10), j-- in each iteration.

```
        print * in inner loop.
```

```
    print \n in Outer loop.
```

```
-----*/
```

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

```
#include<time.h>
```

// Note: to practice/run this program please see Left Shift Triangle Pattern and Right Shift Triangle Pattern

```
int main(){
```

```
    int i; // i to hold the index number of row.
```

```
    int j; // j to hold the index number of column.
```

```
    // this nested loop will print the Left Shift Triangle Pattern
```

```
    for(i=1; i<=10; i++){
```

```
//        sleep(1); // to pause the program for 1 second after changing the row.
```

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

```
//            sleep(1); // to pause the program for 1 second after changing the column.
```

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

```
        }
```

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

```
    }
```

```
    // This nested loop will print the Right Shift Triangle Pattern.
```

```
    for(i=1; i<=10; i++){
```

```
        for(j=10; j>=i; j--){
```

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

```
        }
```

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

```
    }
```

```
}
```