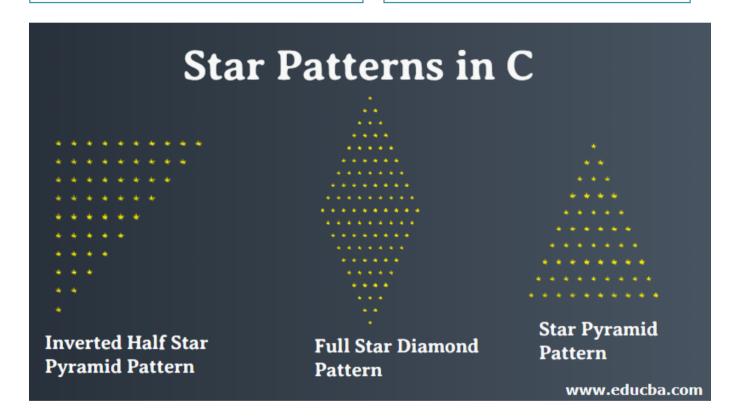


← (https://www.educba.com/patterns-in-c-programming/)

(https://www.educba.com/numberpatterns-in-c/)



## Introduction of Star pattern in C

In this article, first, we are going to see how to use C programming

(https://www.educba.com/career-in-c-programming/) to work with various star patterns

programs with the help of examples. In any programming language, star patterns are one of the

common patterns that are widely used because it helps to improve logical thinking and flow



### **Examples of Star Patterns in C language**

Let us discuss some examples to understand the concept in C language easily.

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### Example 1: Program in C to print star pyramid pattern.

In the following program, the user can enter the number of rows to print the star pyramid pattern as he wishes, then the result will be displayed on the screen:

```
#include<stdio.h>
#include<conio.h>
int main()
{
  int n, s, i, j;
  printf("Enter number of rows: ");
  scanf("%d",&n);
  for(i = 1; i <= n; i++)
  {
    //for loop for displaying space
    for(s = i; s < n; s++)
    {
    printf(" ");
}</pre>
```



```
(https://www.educba
.com/software-
development/)

}
// ending line after each row
printf("\n");
}
}
```

### Example 2: Program in C to enter the number of rows.

In the following program, the user can enter the number of rows to print the star pyramid pattern as he wishes, then the result will be displayed on the screen:

```
#include<stdio.h>
#include<conio.h>
int main()
{
int n, s, i, j;
```



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```
//for loop to put space
for(s = i; s < n; s++)
printf(" ");
//for loop for displaying star
for(j = 1; j <= (2 * i - 1); j++)
printf("* ");
// ending line after each row
printf("\n");
}
return 0;
}</pre>
```



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### Example 3: Program in C to print half star pyramid pattern.

In the following program, the user can enter the number of rows to print the half star pyramid pattern as he wishes, then the result will be displayed on the screen:

```
#include<stdio.h>
#include<conio.h>
int main()
{
   int i, j, n;
   printf("Enter number of rows: ");
   scanf("%d",&n);
   for(i = 1; i <= n; i++)
   {
      for(j = 1; j <= i; j++)
   }
}</pre>
```

```
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   development/)
printf("\n");
}
return 0;
}
```

## Example 4: Program in C to print the inverted half star pyramid pattern.

In the following program, the user can enter the number of rows to print the inverted half star pyramid pattern as he wishes, then the result will be displayed on the screen:

```
#include<stdio.h>
#include<conio.h>
int main()
{
int i, j, n;
printf("Enter number of rows: ");
```

```
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{
 printf("* ");
}

// ending line after each row
printf("\n");
}
 return 0;
}
```

## Example 5: Program to print the full star diamond pattern in C.

In the following program, the user can enter the number of rows for the diamond dimension to print the diamond pattern as he wishes, then the result will be displayed on the screen:



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```
printf("Enter number of rows: ");
scanf("%d",&n);
for(i = 0; i \le n; i++)
{
for(s = n; s > i; s--)
printf(" ");
for(j=0; j<i; j++)
printf("* ");
printf("\n");
}
for(i = 1; i < n; i++)
for(s = 0; s < i; s++)
printf(" ");
for(j = n; j > i; j--)
printf("* ");
// ending line after each row
printf("\n");
}
return 0;
}
```

**Output:** 





## Example 6: Program in C to print inverted star pyramid pattern.

In the following program, the user can enter the number of rows to print the inverted star pyramid pattern as he wishes, then the result will be displayed on the screen:

```
#include<stdio.h>
#include<conio.h>
int main()
{
  int n, s, i, j;
  printf("Enter number of rows: ");
  scanf("%d",&n);
  for(i = n; i >= 1; i--)
{
//for loop to put space
```

```
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.com/software-
development/)

printf("* ");
// ending line after each row
printf("\n");
}
return 0;
```

}

### Example 7: Program in C to enter the number of rows.

In the following program, the user can enter the number of rows to print the star pyramid pattern as he wishes, then the result will be displayed on the screen:

```
#include<stdio.h>
#include<conio.h>
int main()
{
```



```
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development/)
```

```
{
//for loop to put space
for(s = i; s < n; s++)
printf(" ");
//for loop for displaying star
for(j = 1; j <= i; j++)
printf("* ");
// ending line after each row
printf("\n");
}
return 0;
}</pre>
```

#### **Output:**

Example 8: Program in C to enter the number of rows to print.

In the following program, the user can enter the number of rows to print the star pyramid



```
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```

```
int main()
{
int n, i , j;
printf("Enter number of rows: ");
scanf("%d",&n);
for(i = 1; i \le n; i++)
{
for(j = 1; j \le i; j++)
{
printf("*");
}
printf("\n");
for(i = n; i >= 1; i--)
{
for(j = 1; j \le i; j++)
{
printf( "*");
}
// ending line after each row
printf("\n");
}
return 0;
}
```



#### **Output:**



## Example 9: Program in C to enter the number of rows to print the star

In the following program, the user can enter the number of rows to print the star pyramid pattern as he wishes, then the result will be displayed on the screen:

```
#include<stdio.h>
#include<conio.h>
int main()
{
  int n, i, j;
  printf("Enter number of rows: ");
  scanf("%d",&n);
  for(i = 1; i <= n; i++)</pre>
```



```
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development/)
```

```
for(j = 1; j \le i; j++)
{
printf("*");
printf("\n");
}
for(i = n; i >= 1; i--)
{
for(j = i; j \le n; j++)
{
printf(" ");
}
for(j = 1; j < i; j++)
{
printf("*");
// ending line after each row
printf("\n");
}
return 0;
}
```

**Output:** 





## Example 10: C+ Program to print the hollow star pyramid in a diamond pattern.

In the following C program, the user can enter the number of rows to print the hollow star pyramid in a diamond pattern as he wishes, then the result will be displayed on the screen:

```
#include<stdio.h>
#include<conio.h>
int main()
{
    printf("Enter size of Daimond: ");
    int n, i, j, m = 1, k;
    scanf("%d",&n);
    for(i = 0; i <= n; i++)
    {
        for(j = n; j > i; j--)
        {
            printf(" ");
        }
        }
}
```



```
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development/)
```

```
for(k = 1; k \le m; k++)
{
printf(" ");
}
m += 2;
printf("*");
printf("\n");
}
m -= 4;
for(i = 0; i \le n-1; i++)
{
for(j = 0; j \le i; j++)
{
printf(" ");
printf("*");
for(k = 1; k \le m; k++)
{
printf(" ");
}
m -= 2;
if(i != n-1)
{
printf ("*");
```





## Example 11: Program to print hollow star pyramid pattern in C.

In the following program, the user can enter the number of rows to print the hollow star pyramid pattern as he wishes, then the result will be displayed on the screen:





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```
printf("Enter number of rows: ");
scanf("%d",&r);
for(i = 1; i \le r; i++)
{
//for loop to put space in pyramid
for (s = i; s < r; s++)
printf(" ");
//for loop to print star
for(j = 1; j \le (2 * r - 1); j++)
{
if(i == r \mid \mid j == 1 \mid \mid j == 2*i - 1)
printf("*");
else
printf(" ");
}
//ending line after each row
printf("\n");
}
return 0;
}
```

**Output:** 





## Example 12: Program to print inverted hollow star pyramid pattern in C.

In the following program, the user can enter the number of rows to print the inverted hollow star pyramid pattern as he wishes, then the result will be displayed on the screen:

C program to display the inverted hollow star pyramid.

```
#include<stdio.h>
#include<conio.h>
int main()
{
  int r, i, j, s;
  printf("Enter number of rows: ");
  scanf("%d",&r);
  for(i = r; i >= 1; i--)
  {
    //for loop to put space in pyramid
  for (s = i; s < r; s++)
  printf(" ");
    //for loop to print star in pyramid
  for(j = 1; j <= 2 * i - 1; j++)</pre>
```

```
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}
printf("\n");
}
return 0;
}
```

### Conclusion

So here we have seen programs for how to print various Star pattern. How to print the Star pyramid pattern and to print the inverted hollow star pyramid pattern in the number of rows. Includes Formulas to grow better and understand step by step.

### **Recommended Articles**



This has been a guide to Star Patterns in C. Here we discuss the examples of star patterns in C



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