

Pattern Printing in C

Output :

```
* * * * *
* * * * *
* * * * *
* * * * *
* * * * *
_
```

Program :

```
/* Program to print pyramid pattern in C : Pattern 1

#include <stdio.h>
#include <conio.h>
void main()
{
    int i,j;
    clrscr();
    for(i=0; i<5; i++)
    {
        for(j=0; j<5; j++)
        {
            printf(" * ");
        }
        printf("\n");
    }
    getch();
}
```

Output :

```
*
* *
* * *
* * * *
* * * * *
_
```

Program :

```
/* Program to print pyramid pattern in C : Pattern 2

#include <stdio.h>
#include <conio.h>
void main()
{
    int i,j;
    clrscr();
    for(i=0; i<5; i++)
    {
        for(j=0; j<=i; j++)
```

```

        {
            printf(" * ");
        }
        printf("\n");
    }
    getch();
}

```

Output :

```

      *
     * *
    * * *
   * * * *
  * * * * *
 * * * * * _

```

Program :

```

/* Program to print pyramid pattern in C : Pattern 3

#include <stdio.h>
#include <conio.h>
void main()
{
    int i,j,k;
    clrscr();
    for(i=1; i<=5; i++)
    {
        for(j=5; j>=i; j--)
        {
            printf(" ");
        }
        for(k=1; k<=i; k++)
        {
            printf("*");
        }
        printf("\n");
    }
    getch();
}

```

Output :

```

* * * * *
 * * * *
  * * *
   * *
    *
     _

```

Program :

/* Program to print pyramid pattern in C : Pattern 4

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i,j,k,samp=1;
    clrscr();
    for(i=5; i>=1; i--)
    {
        for(k=samp; k>=0; k--)
        {
            printf(" "); // only 1 space
        }
        for(j=i; j>=1; j--)
        {
            printf("*");
        }
        samp = samp + 1;
        printf("\n");
    }
    getch();
}
```

or

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i,j,k;
    clrscr();
    for(i=1; i<=5; i++)
    {
        for(j=5; j>=i; j--)
        {
            printf("*");
        }
        for(k=1; k<=i; k++)
        {
            printf(" ");
        }
        printf("\n");
    }
    getch();
}
```

Output :

```
* * * * *
* * * *
* * *
* *
*
_
```

Program :

```
/* Program to print pyramid pattern in C : Pattern 5

#include <stdio.h>
#include <conio.h>
void main()
{
    int i,j;
    clrscr();
    for(i=5; i>=1; i--)
    {
        for(j=1; j<=i; j++)
        {
            printf(" * ");
        }
        printf("\n");
    }
    getch();
}
```

Output :

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

Program :

```
/* Program to print pyramid pattern in C : Pattern 6

#include <stdio.h>
#include <conio.h>
void main()
{
    int i,j,k,t=0;
    clrscr();
    for(i=1; i<=5; i++)
    {
        for(k=t; k<5; k++)
        {
            printf(" ");
        }
        for(j=0; j< i; j++)
        {
            printf(" * ");
            t = t + 1;
        }
        printf("\n");
    }
    getch();
}
```

}

Output :

```
      *
     * *
    * * *
   * * * *
  * * * * *
 * * * * *
  * * * *
   * * *
    * *
     *
      _
```

Program :

```
/* Program to print pyramid pattern in C : Pattern 7
```

```
Creation Date : 01:13 AM 22/11/2010
```

```
Author : www.technoexam.com [Technowell, Sangli] */
```

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i,j,k,samp=1;
    clrscr();
    for(i=1; i<=5; i++)
    {
        for(k=samp; k<=5; k++)
        {
            printf(" ");
        }
        for(j=0; j< i; j++)
        {
            printf("*");
        }
        samp = samp + 1;
        printf("\n");
    }
    samp = 1;
    for(i=4; i>=1; i--)
    {
        for(k=samp; k>=0; k--)
        {
            printf(" ");
        }
        for(j=i; j>=1; j--)
        {
            printf("*");
        }
        samp = samp + 1;
        printf("\n");
    }
    getch();
}
```

```
}
```

Output :

Enter number of rows: 5

```
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15_
```

Program :

```
/* Program to print pyramid pattern in C : Pattern 8
```

```
Creation Date : 02:39 PM 01/10/2011
```

```
Author : www.technoexam.com [Technowell, Sangli] */
```

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int rw, c, no=1 ,len;
    clrscr();
    printf("Enter number of rows: ");
    scanf("%d," &len);
    for(rw=1; rw<=len; rw++)
    {
        printf("\n");
        for(c=1; c<=rw; c++)
        {
            printf(" %2d ", no);
            no++;
        }
        getch();
    }
}
```

Output :

Enter number of rows: 5

```
0
1 0 1
2 1 0 1 2
3 2 1 0 1 2 3
4 3 2 1 0 1 2 3 4
5 4 3 2 1 0 1 2 3 4 5_
```

Program :

```
/* Program to print pyramid pattern in C : Pattern 9
```

```
Creation Date : 03:19 PM 01/10/2011
```

```
Author : www.technoexam.com [Technowell, Sangli] */
```

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int no,i,y,x=35;
    clrscr();
    printf("Enter number of rows: ");
    scanf("%d", &no);
    for(y=0;y<=no;y++)
    {
        goto(x,y+1);
        for(i=0-y; i<=y; i++)
        {
            printf(" %3d ", abs(i));
            x=x-3;
        }
        getch();
    }
}
```

Output :

```
  1
 2 2
3 3 3
4 4 4 4
5 5 5 5 5_
```

Program :

```
/* Program to print pyramid pattern in C : Pattern 10
```

```
Creation Date : 03:14 PM 01/10/2011
```

```
Author : www.technoexam.com [Technowell, Sangli] */
```

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i, j=5, k, x;
    clrscr();
    for(i=1;i<=5;i++)
    {
        for(k=1;k<=j;k++)
        {
            printf(" ");
        }
        for(x=1;x<=i;x++)
```

```

        {
            printf("%d",i);
            printf(" ");
        }
        printf("\n");
        j=j-1;
    }
    getch();
}

```

Output :

```

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

```

Program :

```

/* Program to print pyramid pattern in C : Pattern 11
Creation Date : 03:24 PM 01/10/2011
Author : www.technoexam.com [Technowell, Sangli] */

#include <stdio.h>
#include <conio.h>
void main()
{
    int rw,c,no,spc;
    clrscr();
    printf("Enter number of rows : ");
    scanf("%d", &no);
    for(rw=1; rw<=no; rw++)
    {
        for(spc=no; spc>=rw; spc--)
        {
            printf(" ");
        }
        for(c=1; c<=rw; c++)
        {
            printf("%2d",c);
        }
        printf("\n");
    }
    getch();
}

```

Output :


```

      1
    1 2 3
  1 2 3 4 5
1 2 3 4 5 6 7
1 2 3 4 5 6 7 8 9_

```

Program :

```
/* Program to print pyramid pattern in C : Pattern 12
```

```
Creation Date : 03:24 PM 01/10/2011
```

```
Author : www.technoexam.com [Technowell, Sangli] */
```

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int i,j,k;
    clrscr();
    for(i=1; i<=5; i++)
    {
        for(j=1; j<=5-i; j++)
        {
            printf("  ");
        }
        for(k=1; k<=2*i-1; k++)
        {
            printf(" %d ",k);
        }
        printf("\n");
    }
    getch();
}

```

Output :

```

A B C D E F G G F E D C B A
 A B C D E F F E D C B A
  A B C D E E D C B A
   A B C D D C B A
    A B C C B A
     A B B A
      A A_

```

Program :

```
/* Program to print pyramid pattern in C : Pattern 13
```

```
Creation Date : 04:24 PM 01/10/2011
```

```
Author : www.technoexam.com [Technowell, Sangli] */
```

```

#include <stdio.h>
#include <conio.h>
void main()

```

```

{
    int i,j,asci,spc;
    clrscr();
    for(i=7; i>=1; i--)
    {
        for(spc=6; spc>=i; spc--)
        {
            printf("  ");
        }
        asci=65;
        for(j=1; j<=i; j++)
        {
            printf("%2c",asci++);
        }
        for(j=i-1; j>=0; j--)
        {
            printf("%2c",--asci);
        }
        printf("\n");
    }
    getch();
}

```

Output :

```

AAA AAB AAC ABA ABB ABC ACA ACB ACC BAA BAB BAC BBA BBB
BBC BCA BCB BCC CAA CAB CAC CBA CBB CBC CCA CCB CCC_

```

Program :

```

/* Program to print all Combinations of characters

A, B, C : Pattern 14

Creation Date : 11:33 PM 01/10/2011

Author : www.technoexam.com [Technowell, Sangli] */

#include <stdio.h>
#include <conio.h>
void main()
{
    char ch1, ch2, ch3;
    clrscr();
    for(ch1='A' ; ch1<='C' ; ++ch1)
    {
        for(ch2='A' ; ch2<='C' ; ++ch2)
        {
            for(ch3='A' ; ch3<='C' ; ++ch3)
            {
                printf(" %c%c%c", ch1, ch2, ch3);
            }
        }
    }
    getch();
}

```

```
}
```

- Write a C program to print the following pattern:

```
1
0 1
1 0 1
0 1 0 1
1 0 1 0 1
```

Program:

```
#include <stdio.h>

int main(void) {
    int i, j;
    for (i = 0; i < 4; i++) {
        for (j = 0; j <= i; j++) {
            if (((i + j) % 2) == 0) { // Decides on as to which digit to print.
                printf("0");
            } else {
                printf("1");
            }
            printf("\t");
        }
        printf("\n");
    }
    return 0;
}
```

- Write C program to print the following pattern:

```
0
1 1
2 3 5
8 13 21
```

Program:

```
#include <stdio.h>

int main(void) {
    int i, j, a = 0, b = 1, temp = 1;
    for (i = 1; i <= 4; i++) {
        for (j = 1; j <= i; j++) {
            if (i == 1 && j == 1) { // Prints the '0' individually first
                printf("0");
                continue;
            }
            printf("%d ", temp); // Prints the next digit in the series
            //Computes the series
            temp = a + b;
            a = b;
            b = temp;
            if (i == 4 && j == 3) { // Skips the 4th character of the base
                break;
            }
        }
        printf("\n");
    }
    return 0;
}
```

- Write C program to print the following pattern:

```
1
121
12321
1234321
12321
121
1
```

Program:

```
#include <stdio.h>

void sequence(int x);
int main() {
    /* c taken for columns */
    int i, x = 0, num = 7;
    for (i = 1; i <= num; i++) {
        if (i <= (num / 2) + 1) {
            x = i;
        } else {
            x = 8 - i;
        }
        sequence(x);
        puts("\n");
    }
    return 0;
}

void sequence(int x) {
    int j;

    for (j = 1; j < x; j++) {
        printf("%d", j);
    }
    for (j = x; j > 0; j--) {
        printf("%d", j);
    }
}
```

- Write a C program to print the following pattern:

```
77777777777
      7
     77
    777
   7777
  77777
 777777
7777777
7777777
```

Program:

```
#include <stdio.h>

int main(void) {
    int i, j;
    for (i = 11; i >= 1; i--) {
        for (j = 1; j <= i; j++) {
            if (i == 11) {
```

```

    printf("7"); // Makes sure the base is printed completely
    continue;
} else if (j == i) { // Hollows the rest
    printf("7");
} else {
    printf(" ");
}
}
printf("\n");
}
return 0;
}

```

- Write a C program to print the following pattern:

```

1
2 4
3 6 9
2 4
1

```

Program:

```

#include <stdio.h>
int main(void) {
    int i,j;
    for (i=1; i<=3 ; i++) {
        for (j=1; j<=i; j++) {
            printf("%2d", (i*j));
        }
        printf("\n");
    }
    for (i=2; i>=1; i--) { // As they share the same base
        for (j=1; j<=i; j++) {
            printf("%2d",i*j);
        }
        printf("\n");
    }
    return 0;
}

```

- Write a C program to print the following pattern:

```

1
1 0
1 0 0
1 0 0 0
1 0 0 0 0
1 0 0 0 0 0
1 0 0 0 0 0 0
1 0 0 0 0 0
1 0 0 0 0
1 0 0 0
1 0 0
1 0
1

```

Program:

```

#include <stdio.h>

```

```

int main(void) {
    int i,j;
    for (i=1; i<=7; i++) {
        for (j=1; j<=i; j++) {
            if (j==1) {          // Applying the condition
                printf(" 1");
            } else {
                printf(" 0");
            }
        }
        printf("\n");
    }
    for (i=6; i>=1; i--) { //As it shares the same base i=6
        for (j=1; j<=i; j++) {
            if (j==1) {        // Applying the condition
                printf(" 1");
            } else {
                printf(" 0");
            }
        }
        printf("\n");
    }
    return 0;
}

```