

Pattern Programs

1)

Enter Number: 5

*

* *

* * *

* * * *

* * * * *

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

```
int main()
```

```
{
```

```
    int i,j,n;
```

```
    printf("Enter Number: ");
```

```
    scanf("%d",&n);
```

```
    for(i=0;i<n;i++)
```

```
    {
```

```
        for(j=0;j<=i;j++)
```

```
        {
```

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

```
            //printf("%d ", j +1);
```

```
            //printf("%c ", 'A' + j);
```

```
        }
```

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

```
    }
```

```

    return 0;
}

```

Output

```

*           |    1           |    A
* *        |    1 2         |    A B
* * *      |    1 2 3        |    A B C
* * * *    |    1 2 3 4       |    A B C D
* * * * *  |    1 2 3 4 5     |    A B C D E

```

```

=====
=====

```

2)

Output

*	1	A
* *	1 2	A B
* * *	1 2 3	A B C
* * * *	1 2 3 4	A B C D
* * * * *	1 2 3 4 5	A B C D E

// c program to print left half pyramid pattern of star
#include <stdio.h>

int main()

{

int rows = 5;

// first loop is for printing the rows

for (int i = 0; i < rows; i++)

{

// loop for printing leading whitespaces

for (int j = 0; j < 2 * (rows - i) - 1; j++)

//for (int j = 0; j < 2 * (rows - i) - 2; j++)

//for (int j = 0; j < 2 * (rows - i) - 1; j++)

{

printf(" ");

}

```

        // loop for printing * character
        for (int k = 0; k <= i; k++)
        {
            printf("* ");
            //printf("%d ", k + 1);
            //printf("%c ", 'A' + k);
        }
        printf("\n");
    }
    return 0;
}

```

```

=====
=====

```

3)

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
1 2 3 4 5 6 7 8 9

          A
        A B C
      A B C D E
    A B C D E F G
  A B C D E F G H
A B C D E F G H I

```

// C program to print the full pyramid pattern of stars
#include <stdio.h>

```

int main()
{
    int rows = 5;

    // first loop to print all rows
    for (int i = 0; i < rows; i++)
    {

        // inner loop 1 to print white spaces
        for (int j = 0; j < 2 * (rows - i) - 1; j++)
        {
            printf(" ");
        }

        // inner loop 2 to print star * character
        for (int k = 0; k < 2 * i + 1; k++)
        {
            printf("* ");
            // printf("%d ", k + 1);
            // printf("%c ", 'A' + k);
        }
        printf("\n");
    }
    return 0;
}

```

```

=====
=====

```

4)

```
Output

* * * * * | 1 2 3 4 5 | A B C D E
* * * *   | 1 2 3 4   | A B C D
* * *     | 1 2 3     | A B C
* *       | 1 2       | A B
*         | 1         | A
```

// C program to print the inverted right half pyramid of

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

```
int main()
```

```
{
```

```
    int rows = 5;
```

```
    // first loop to print all rows
```

```
    for (int i = 0; i < rows; i++)
```

```
    {
```

```
        // first inner loop to print the * in each row
```

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

```
        {
```

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

```
            // printf("%d ", j + 1);
```

```
            // printf("%c ", 'A' + j);
```

```
        }
```

```

        printf("\n");
    }
}

```

```

=====
=====

```

5)

```

Output

* * * * * | 1 2 3 4 5 | A B C D E
* * * *   | 1 2 3 4   | A B C D
* * *     | 1 2 3     | A B C
* *       | 1 2       | A B
*         | 1         | A

```

// C program to print the inverted right half pyramid of
// stars

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

```
int main()
```

```
{
```

```
    int rows = 5;
```

```
    // first loop to print all rows
```

```
    for (int i = 0; i < rows; i++)
```

```
    {
```

```

// first inner loop to print the * in each row
for (int j = 0; j < rows - i; j++)
{
    printf("* ");
    // printf("%d ", j + 1);
    // printf("%c ", 'A' + j);
}
printf("\n");
}
}

```

```

=====
=====

```

6)



// Online C compiler to run C program online
#include <stdio.h>


```

int main()
{

    int n=7,i,j;

    for (i = 1 ; i <= n ; i++)
    {
        for(j=1;j<=n;j++)
        {
            if(i==1|| i==n || j==1 || j==n || i==j || i+j==n+1 )
                printf("* ");
            else
                printf(" ");
        }
        printf("\n");
    }

    return 0;
}

```

```

=====
=====

```

7)

```

=====
=====

```

