PREREQUISITE: MATRICES

i →

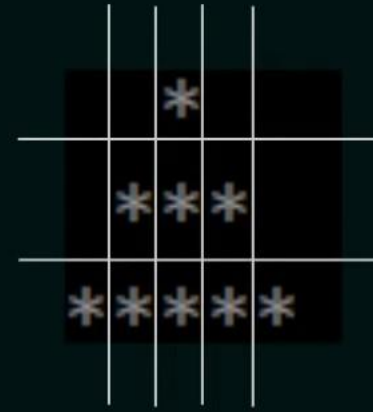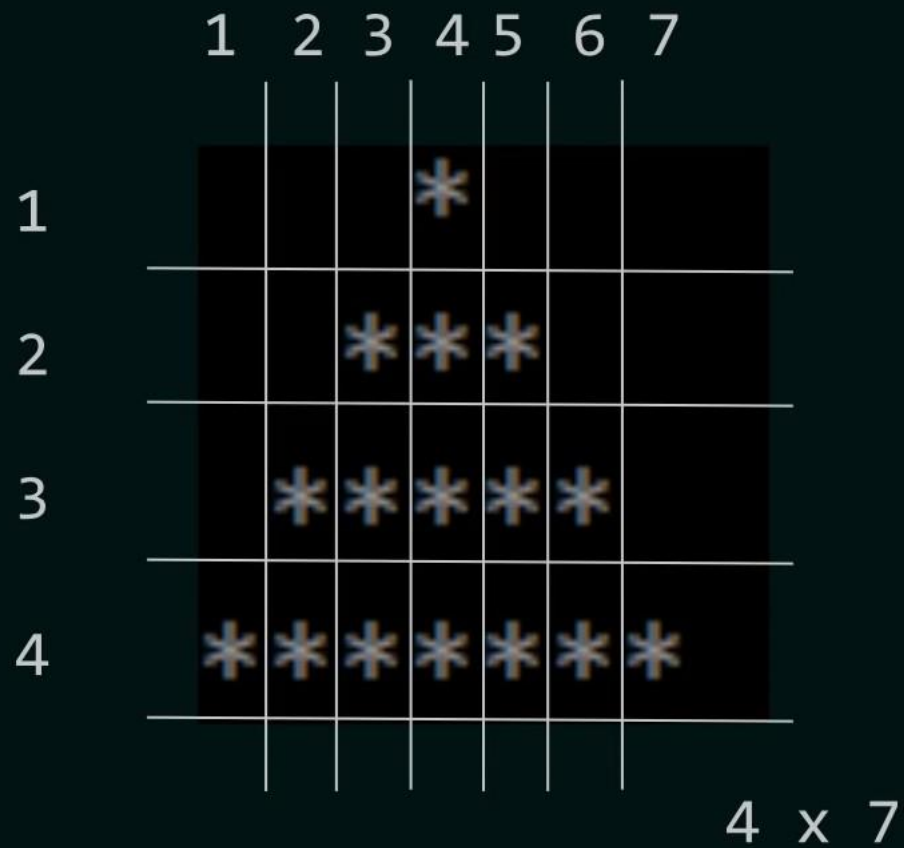|	1	2
1	*	*
2	*	*

← j

	1	2	3	4
1	*	*	*	*
2	*	*	*	*
3	*	*	*	*
4	*	*	*	*

```c
for(i = 1; i <= 2; i++)
{
        for(j = 1; j <= 2; j++)
        {    printf("*");
        }
}
```

```c
for(i = 1; i <= 4; i++)
{
        for(j = 1; j <= 4; j++)
        {    printf("*");
        }
}
```
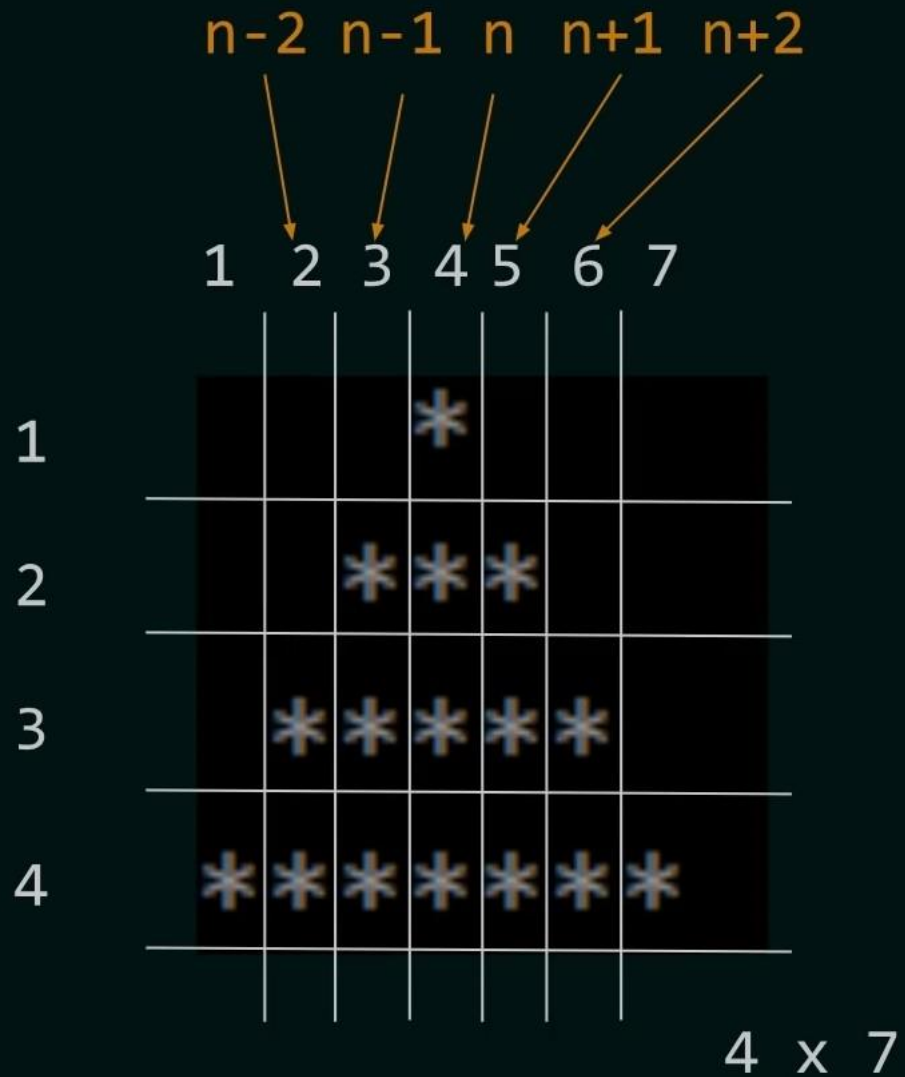
```
       1 2 3 4 5 6 7

   1         *

   2       * * *

   3     * * * * *

   4   * * * * * * *

              4 x 7
```

3 rows -> 5 columns
4 rows -> 7 columns
5 rows -> 9 columns
6 rows -> 11 columns

If n is no. of rows   then 2n - 1 will be
                       no. of columns

NESO ACADEMY

```
for(i = 1; i <= n; i++)
{
    for(j = 1; j <= 2*n - 1; j++)
    {

    }
}
```

```
if(j >= n-(i-1) && j <= n+(i-1))
{
    printf("*");
}
else
{
    printf(" ");
}
```

```c
for(i = 1; i <= n; i++)
{
    for(j = 1; j <= 2*n - 1; j++)
    {
        if(j >= n-(i-1) && j <= n+(i-1))
        {
            printf("*");
        }
        else
        {
            printf(" ");
        }
    }
    printf("\n");
}
```