Pattern Programming Notes

- Inner loop deside the how many columns

- Outer loop deside the how many rows

- If in the row having same value then thats directly connected with outer loop.

- If the value change in the row then this is handled by the inner loop.

Note

1. If values are same in row then think about `i` (outer loop) to generate the pattern.

```
11111
22222
33333
44444
55555
```

Here in the row having same value so main role played by the outer loop

- System.outprint(i+" ");

2. if values are same in each column then think of `j` (inner loop) to print it.

```
12345
12345
12345
12345
12345
```

Here in the column having same value so main role played by the inner loop

- System.out.print(j+" ");

Pattern Programming-

```
for(int i=1, i<=5, i++){

    System out print("* ");

}
```

O/p. * * * * * ↑

```
for(int i=1, i<=5, i++){

    System out println("* ");
}
```

O/p. *
↑ *
↑ *
↑ *
↑ *
→ ↑

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→ This Condition will decide number of rows

```
for(int i=1, i<=5, i++){

    for(int j=1, j<=5, j++){

        System out print("* ");

    }

    System out println();

}}
```

→ This Condition will decide number of Columns in each row

O/p -

		Col1 ↓J=1	Col2 ↓J=2	Col3 ↓J=3	Col4 ↓J=4	Col5 ↓J=5
i = 1	Row1 →	*	*	*	*	^
i = 2	Row2 →	*	*	*	*	^
i = 3	Row3 →	*	*	*	*	*
i = 4	Row4 →	*	*	*	*	*
i = 5	Row5 →	*	*	*	*	*