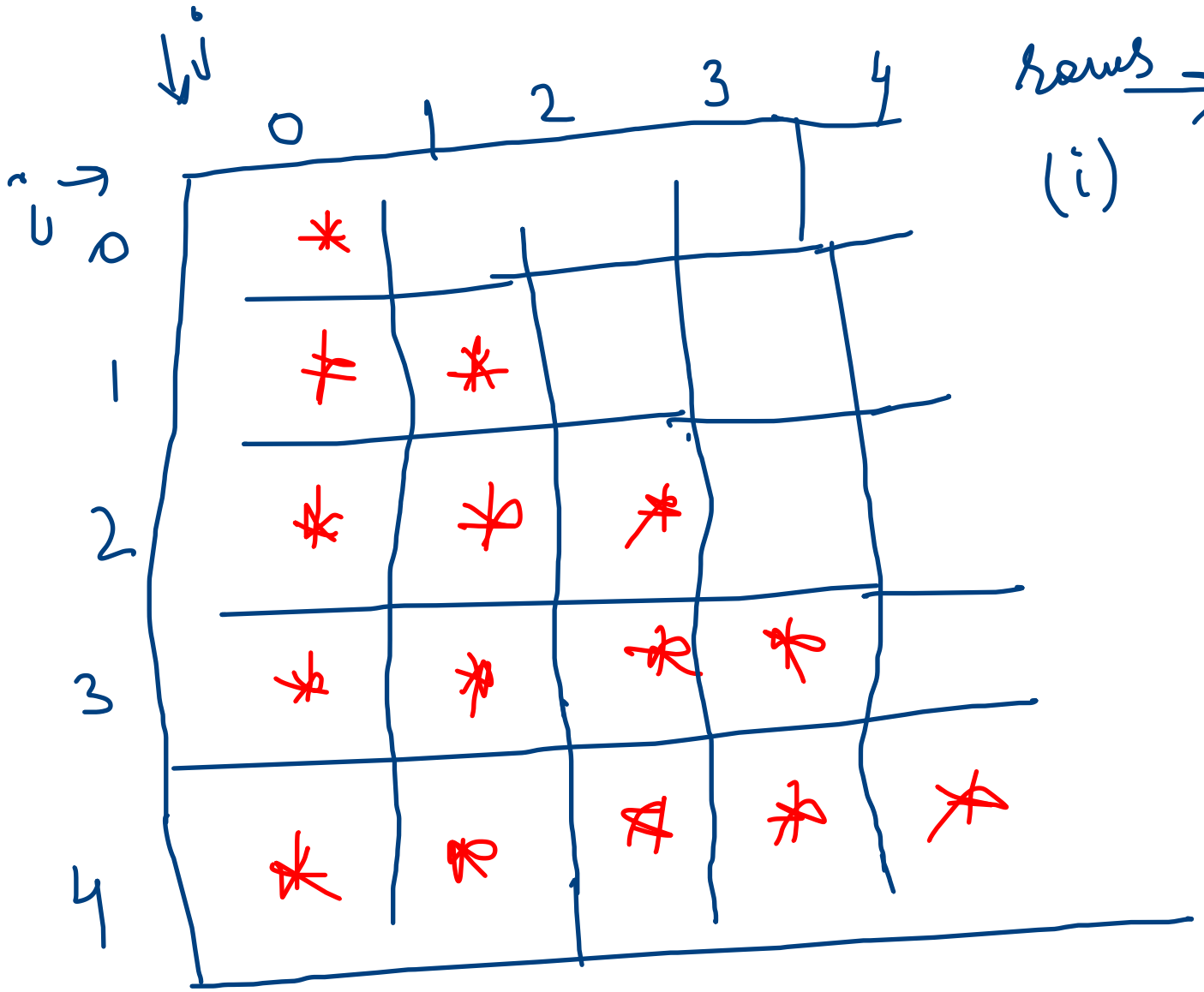
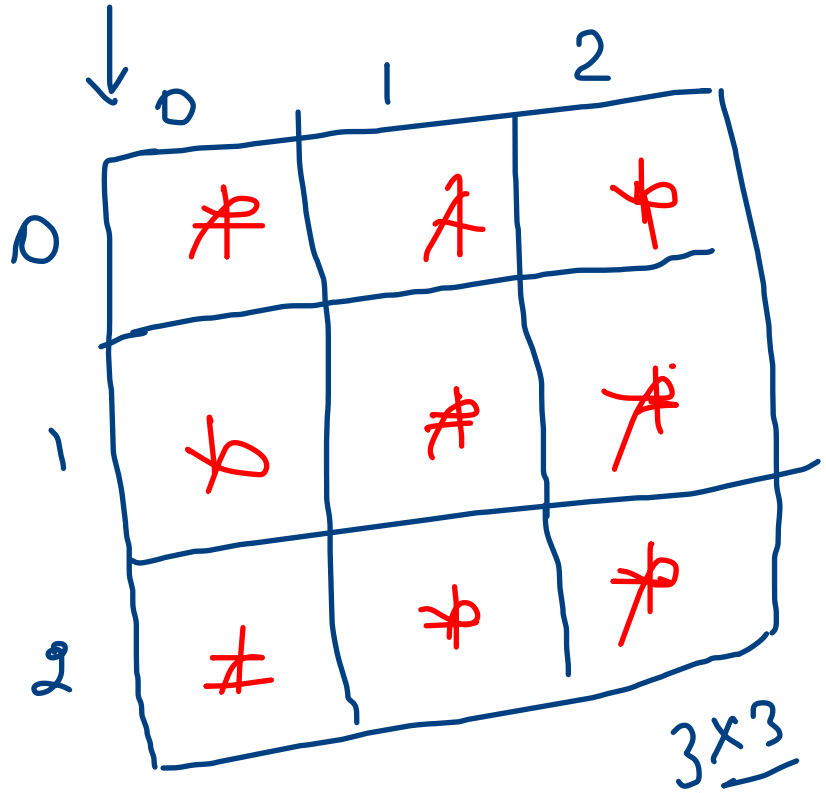
Pattern → Sequence of objects



rows → (i)

col. (j)



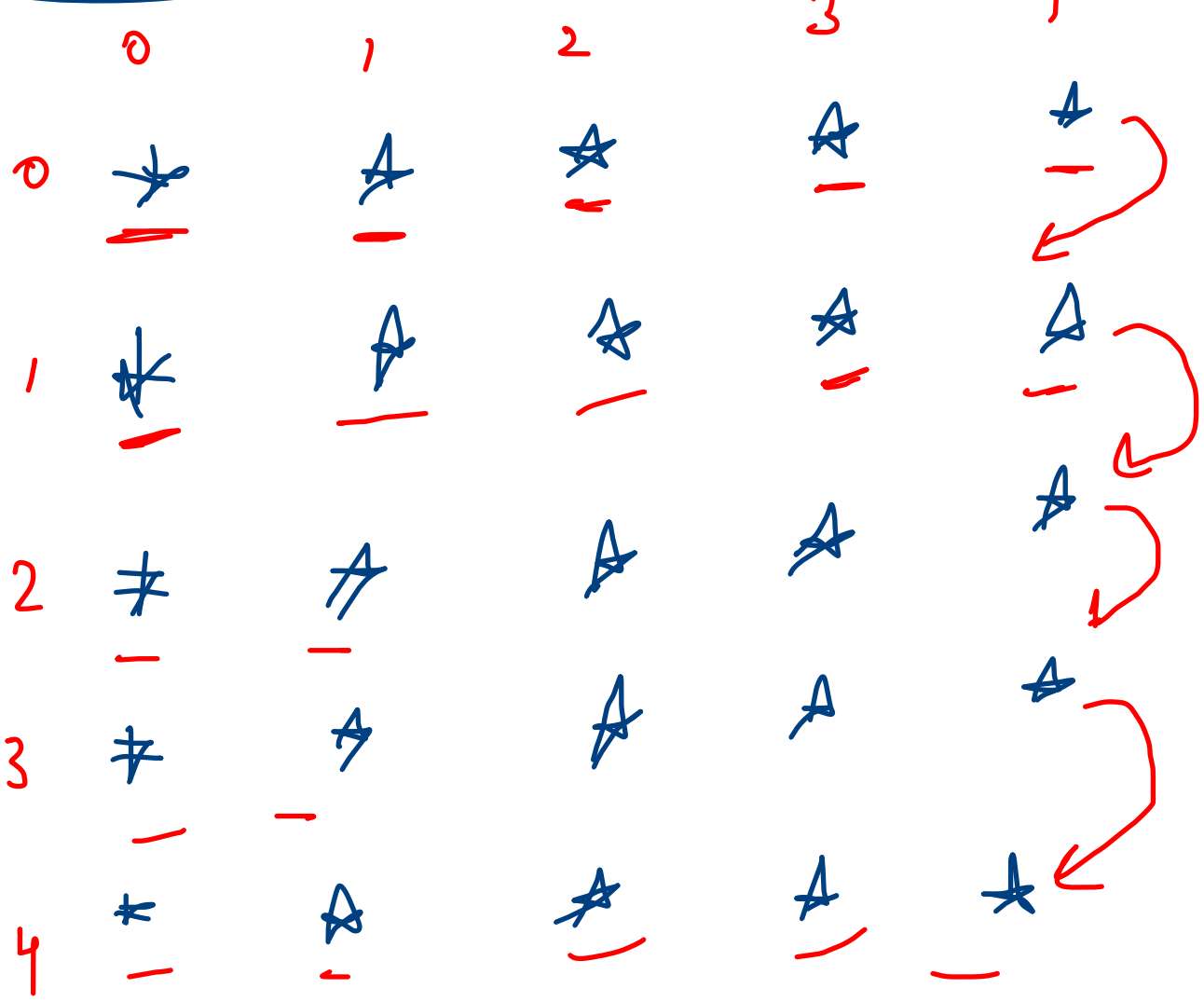
3×3

```
for(int i = 0; i<n; i++){ → rows (outer loop)
    for(int j = 0; j<n; j++){ → columns (inner loop)
        Syso("*");
    }
}
System.out.println();
```

'i' will represent current row

'j' will represent current col.

5x5



i = 0 < 5 T

j = 0 < 5 T
1 < 5 T
2 < 5 T
3 < 5 T
4 < 5 T
5 < 5 F

i = 1 < 5 T

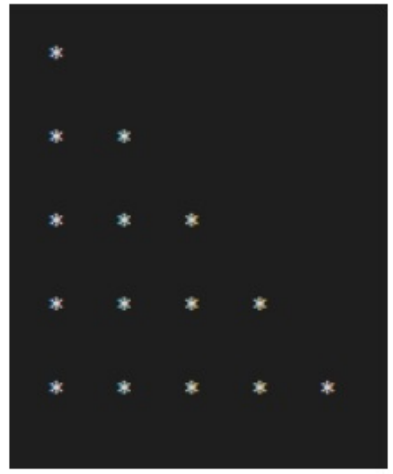
j = 0 < 5 T
1 < 5 T
2 < 5 T
3 < 5 T
4 < 5 T

i = 5 < 5 F

i = 4 < 5 T

j = 0 < 5 T
1 < 5 T
2 < 5 T
3 < 5 T
4 < 5 T

GKSTR19 Pattern_4



```
Scanner s = new Scanner(System.in);
int n = s.nextInt();

for(int i = 1; i <= n; i++ ){   // outer loop rows
    for(int j = 1; j <= i; j++){  // inner loop cols
        System.out.print("* ");
    }
    System.out.println();
}
```

n = 5

i = 1 <= 5 T

j = 1 <= 1 T

2 <= 1 F

i = 2 <= 5 T

j = 1 <= 2 T

2 <= 2 T

3 <= 2 F

i = 3 <= 5 T

j = 1 <= 3 T

2 <= 3 T

3 <= 3 T

4 <= 3 F

i = 4 <= 5 T

j = 1 <= 4 T

2 <= 4 T

3 <= 4 T

4 <= 4 T

5 <= 5 F

i = 5 <= 5 T

j = 1 <= 5 T

2 <= 5 T

3 <= 5 T

4 <= 5 T

5 <= 5 T

6 <= 5 F