Doubts

1. ~~Alternate Row~~

2. ~~Rotation of Array~~

3. Diff of Array

4. ~~Pattern~~

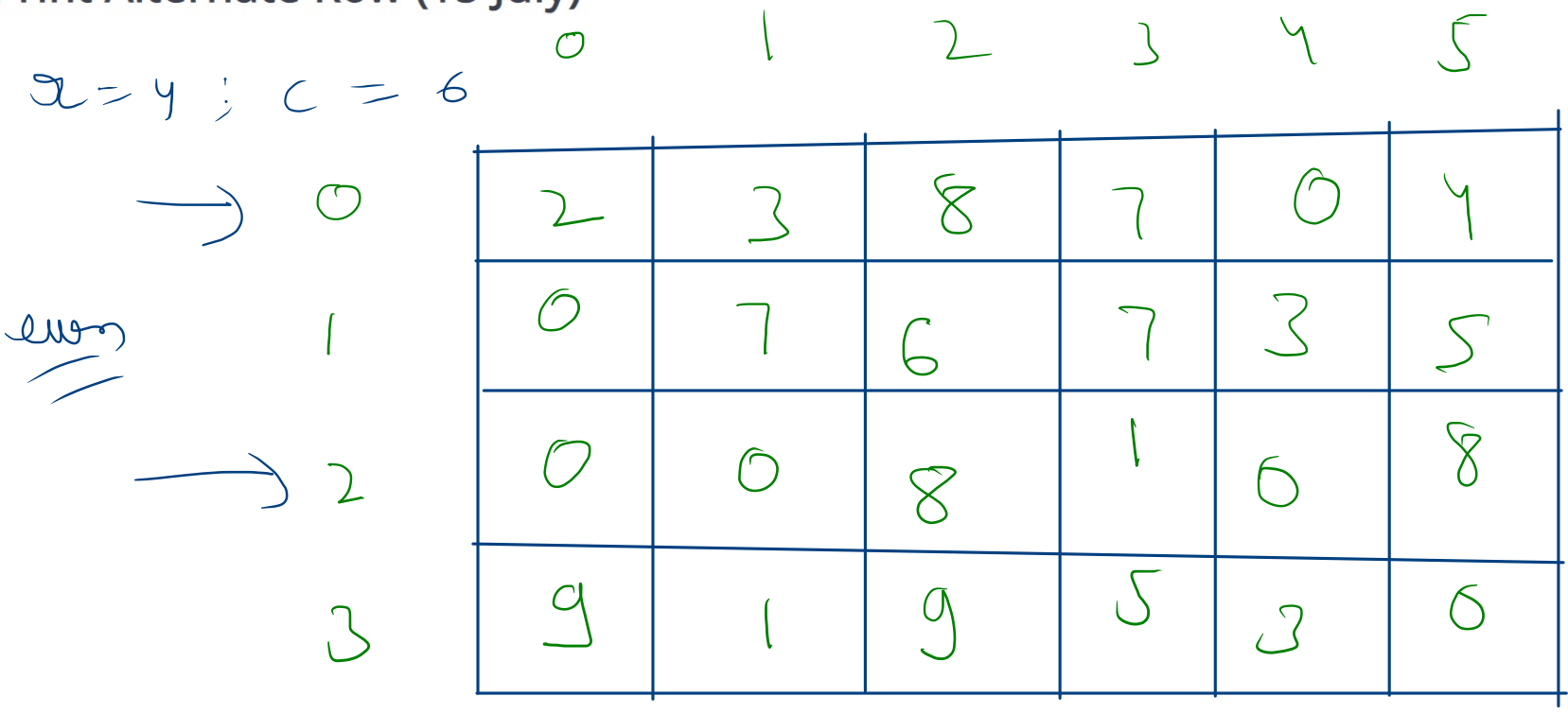
5. ~~Factorial Challenge → Assets~~

6. Toggle & 2 Sums

7. ~~Swap in array~~

8) Divide by 2 3 5

Print Alternate Row (15 July)



```java
public static void main(String[] args) {
    /* Enter your code here. Read input from STDIN. Prir

    // input from user as per ques
    Scanner scn = new Scanner(System.in);
    int m = scn.nextInt();
    int n = scn.nextInt();
    int[][] arr = new int[m][n];

    for (int i = 0; i < m; i++) {
        for (int j = 0; j < n; j++) {
            arr[i][j] = scn.nextInt();
        }
    }

    printAlternateRows(arr);

}

public static void printAlternateRows(int[][] arr) {

    for (int i = 0; i < arr.length; i++) {
        for (int j = 0; j < arr[i].length; j++) {
            if (i % 2 == 0) {
                System.out.print(arr[i][j] + " ");
            }
        }
        if (i % 2 == 0) {
            System.out.println();
        }
    }

}
```

Readability of code

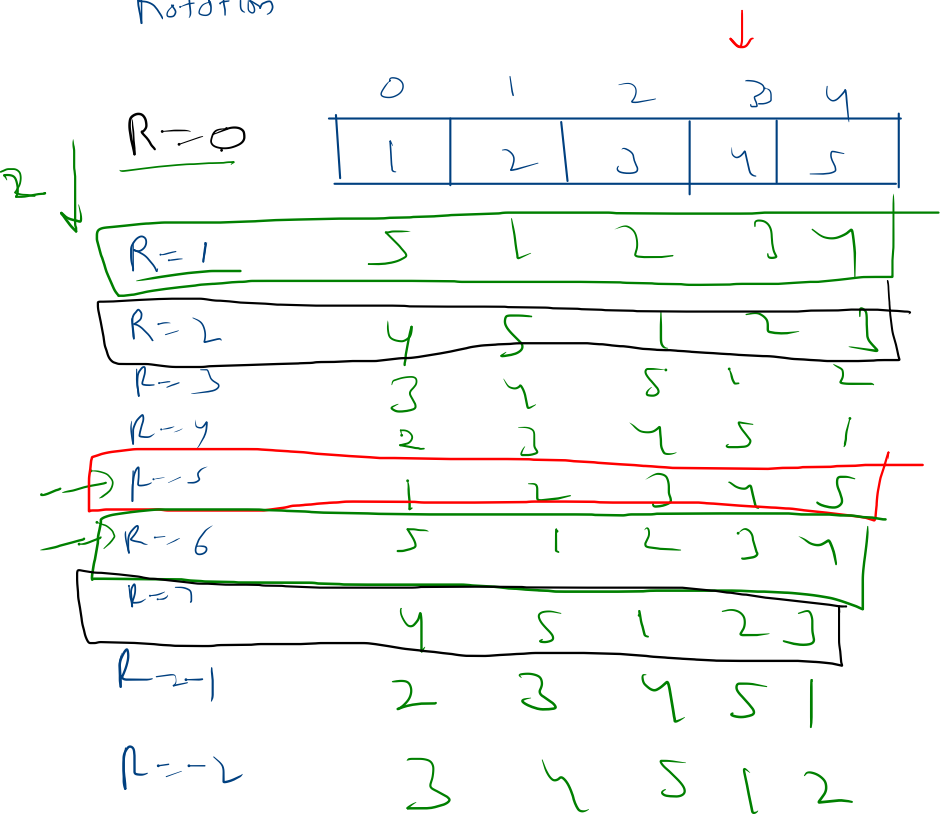
→ Modules → divide in methods → Singly Responsible

→ Proper comments

→ Good Variable names as per naming convention

→ Indentation → Spaces b/w Statements

Rotation



R>0

n = 5

R = 7 % 5

= 2

R = 7 → R = 2

R = 106 → R % 5 = 1

R < 0

R = -2 → -2 % 5 = -2 + 5

= 3

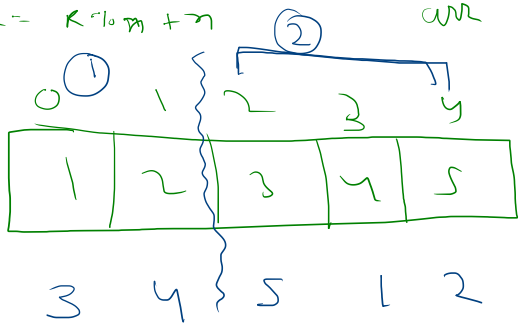
→ R = (R % n + n) (R < 0)

→ R = R % n (R > 0)

R > 0 => R = R % n

R < 0 => R = R % n + n

n = no. of elements in arr



R = -2

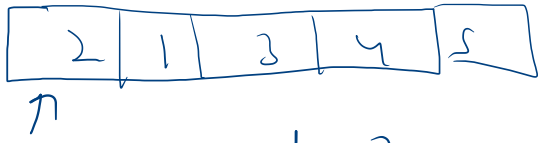
↓

R = -2 % 5 + 5

= -2 + 5

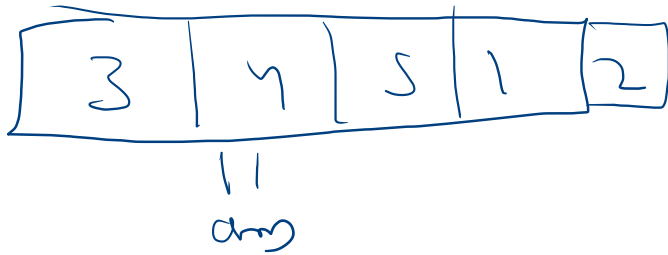
= 3

Stab(1) → reverse Part (1)

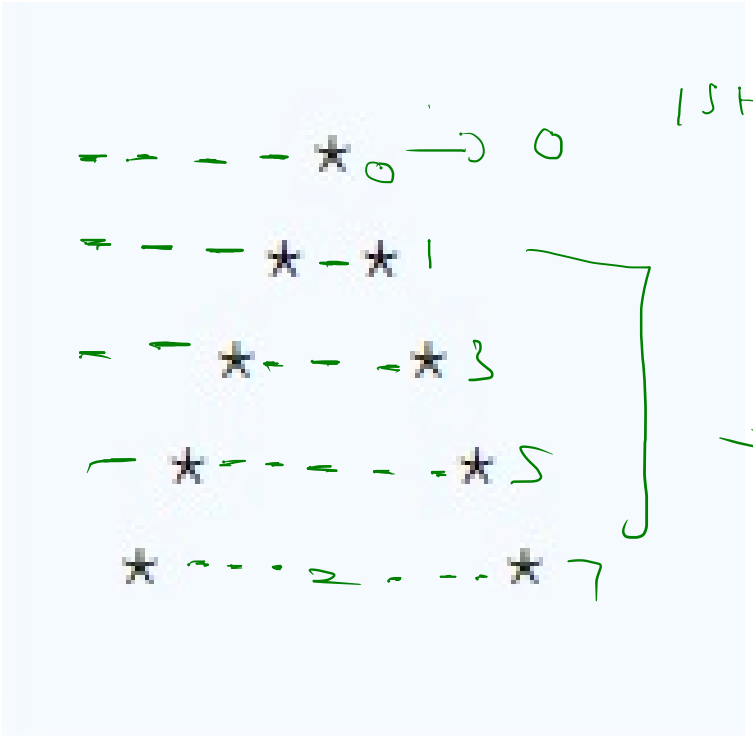


Stab 2 → reverse Part 2

Stab 3 → Reverse Whole arr



Print the given pattern 3



```java
        int n = 5;

        int os = n - 1;
        int is = -1;

        for (int row = 0; row < n; row++) {
            for (int sp = 1; sp <= os; sp++) {
                System.out.print(" ");
            }

            System.out.print("*");

            for (int sp = 1; sp <= is; sp++) {
                System.out.print(" ");
            }

            if (row != 0) {
                System.out.print("*");
            }

            os--;
            is+=2;
            System.out.println();
        }

    }
```

n = 5

n! = 5! = 120

5 x 4 x 3 x 2 x 1

```
(int ans = 1;
 i = 5 ; i >= 1; i--){
    ans = ans x i
}
```

This ans 5! = 120

Today = 2hg vg pw8 e3

String = ans + "!!" + Today

= 120 2hg vg pw8 e3

X X X X

12X 2hXvgX w8 X3

Swap x y z

X = 5

Y = 10

Z = 15

X = 15

Y = 5

Z = 10

OOP

	X	Y	Z
0	5	10	15
am→	15	5	10

a = 5

b = 10

c = 15

X = c

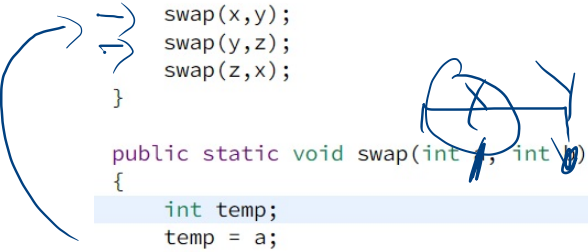
Y = a

Z = b

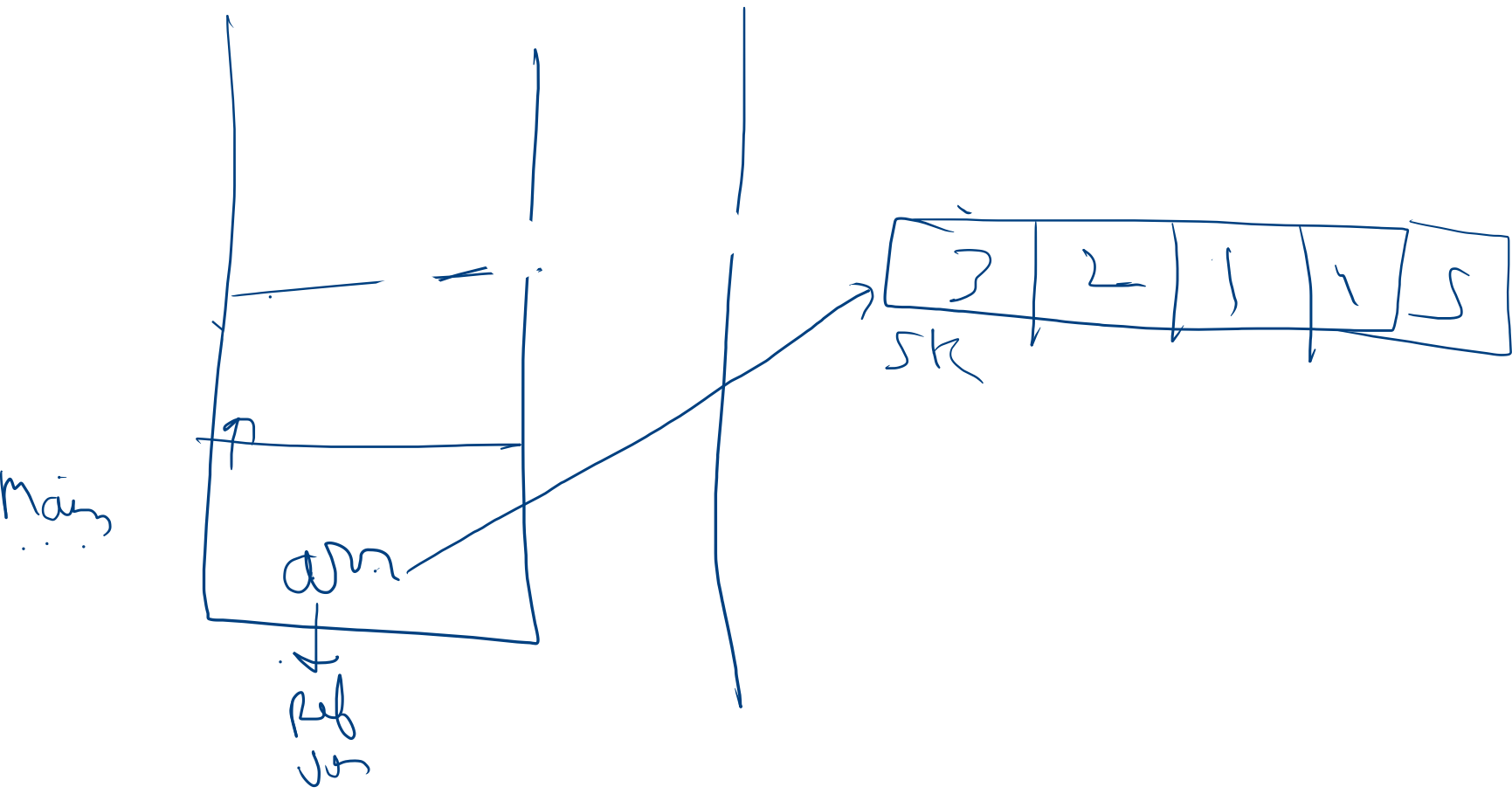
```java
    Scanner scn = new Scanner(System.in);
    int x = scn.nextInt();
    int y = scn.nextInt();
    int z = scn.nextInt();

    swap(x,y);
    swap(y,z);
    swap(z,x);
}

public static void swap(int a, int b)
{
    int temp;
    temp = a;
    a=b;
    b=temp;
    System.out.println();
}
```



Pass


3
2
1
4
5
Main
Ref
Var