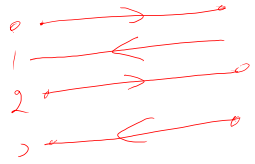
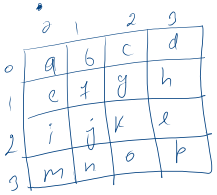
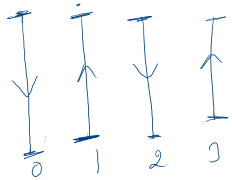
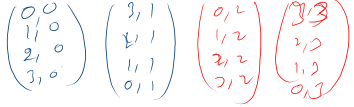








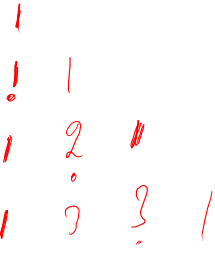
```
for (int c = 0; c < m; c++) {
    if (c % 2 == 0) {
        for (int r = 0; r < n; r++) {
            System.out.print(arr[r][c] + " ");
        }
    } else {
        for (int r = n - 1; r >= 0; r--) {
            System.out.print(arr[r][c] + " ");
        }
    }
}
```

row → even (col : 0 → m-1)
row → odd (col : m-1 → 0)

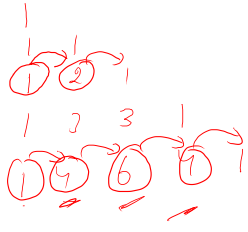
column → even
column → odd

(row : 0 → n-1)
(row : n-1 → 0)

(a b c d h g f e i j k l p o n m)



$^0C_0$
$^1C_0$ $^1C_1$
$^2C_0$ $^2C_1$ $^2C_2$
$^3C_0$ $^3C_1$ $^3C_2$ $^3C_3$
$^4C_0$ $^4C_1$ $^4C_2$ $^4C_3$ $^4C_4$



val = 4 * 3 * 2 * 1

n = 2
r = 1

val

$^nC_r = \frac{n!}{r!(n-r)!}$

$^{n+1}C_r = \frac{(n+1)!}{r!(n+1-r)!}$

$\frac{^{n+1}C_r}{^nC_r} = \frac{\frac{(n+1)!}{r!(n+1-r)!}}{\frac{n!}{r!(n-r)!}}$

$^{n+1}C_r = \frac{(n+1)}{(n+1-r)} \times {}^nC_r$

$^4C_2 = \frac{(4-1)}{(4-1)} \times {}^3C_2$

$= \frac{3}{3} \times 3C_2$

$= 6$