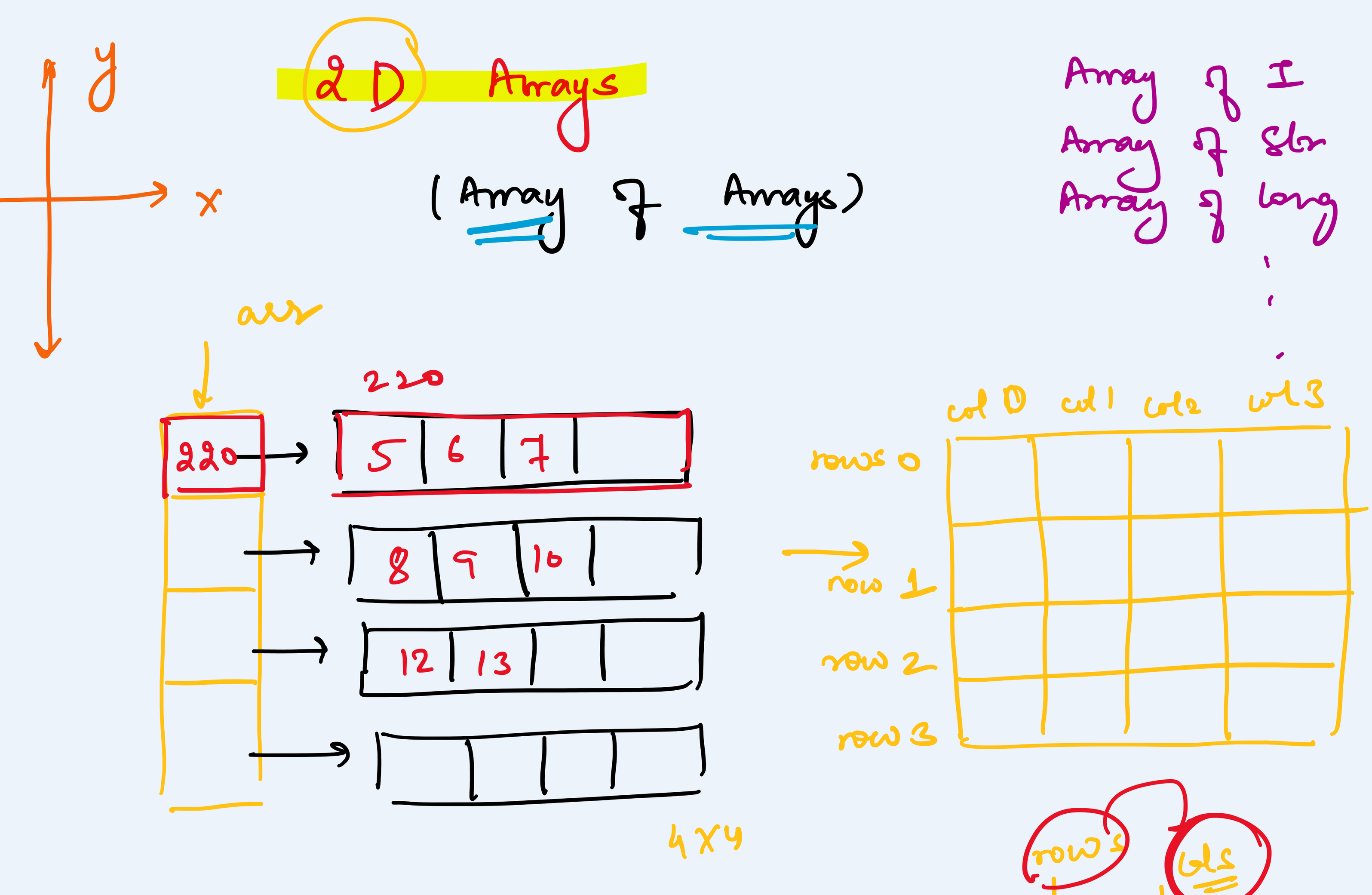
Sunday, 25 July 2021 8:44 PM

2 D Arrays

(Array of Arrays)

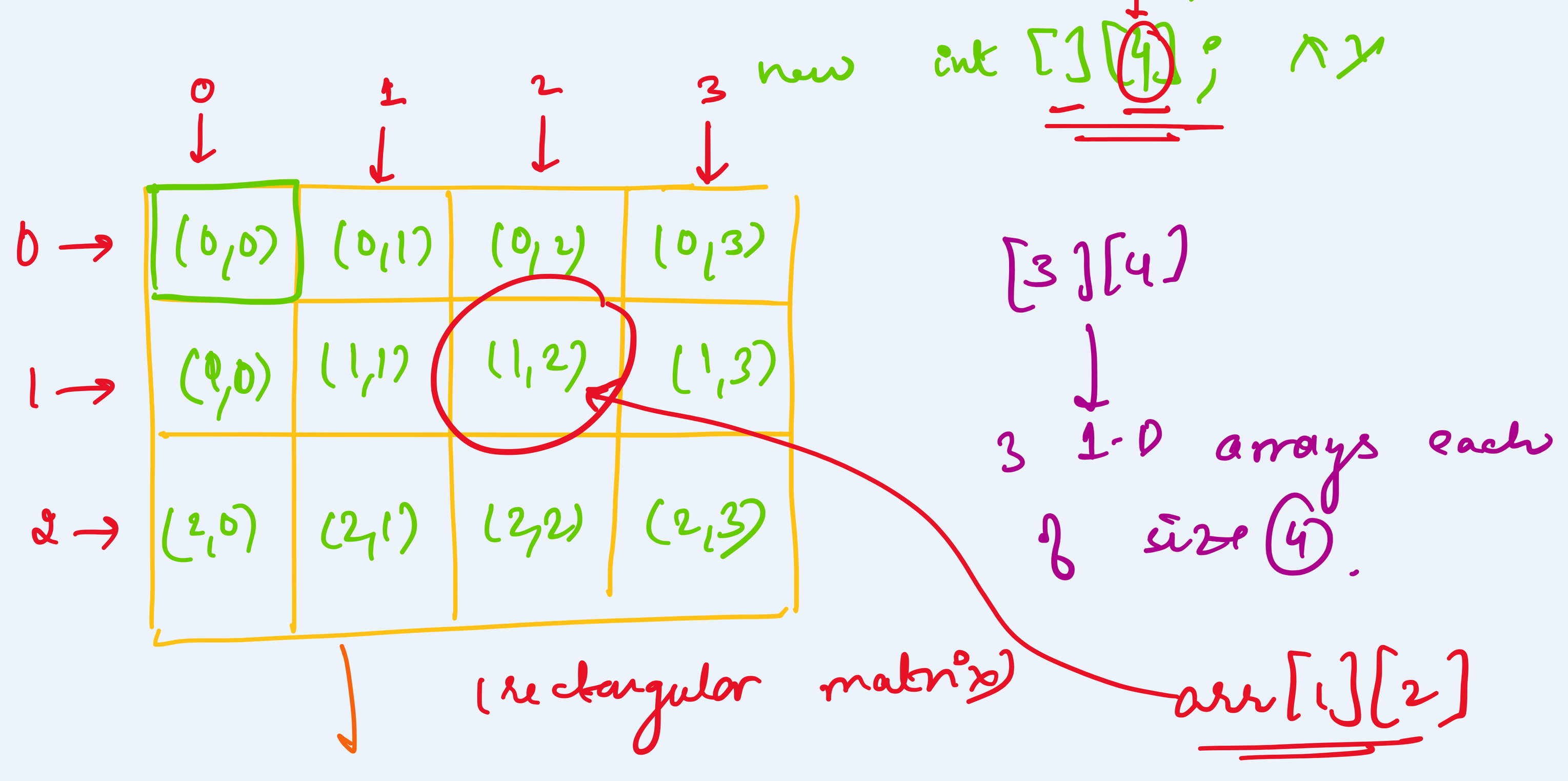
Array of I
Array of Str
Array of long



int [ ][ ] arr = new int [3][4] ;

No of rows is compulsory.

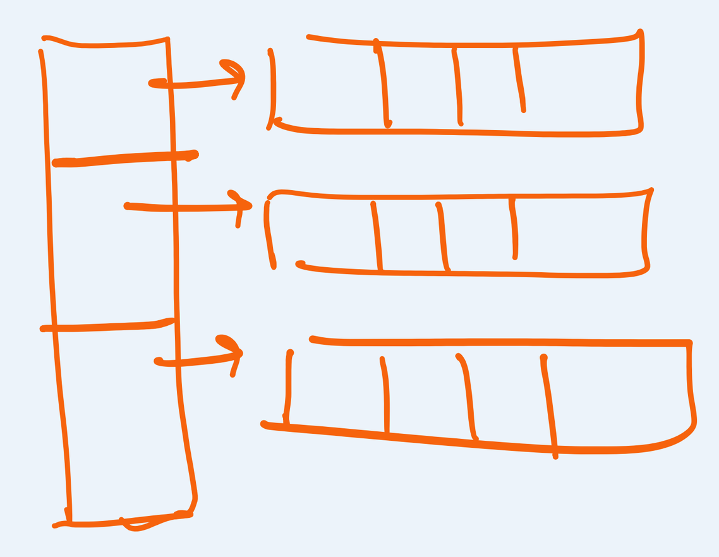
new int [3][ ] ; ✓
new int [ ][ ] ; ✗
new int [ ][4] ; ✗



[3][4]
3 1-D arrays each of size 4.

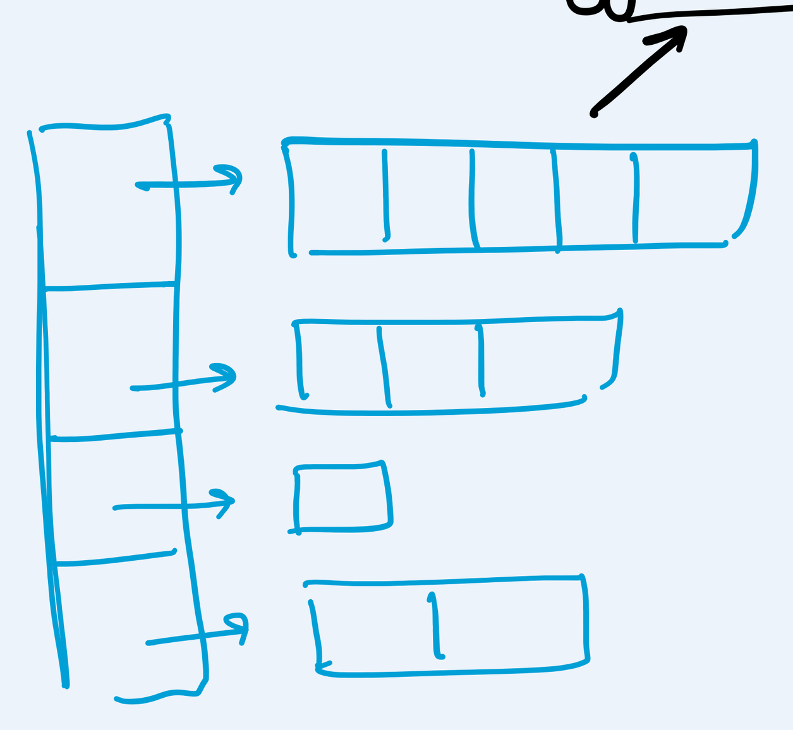
arr[1][2]

(rectangular matrix)

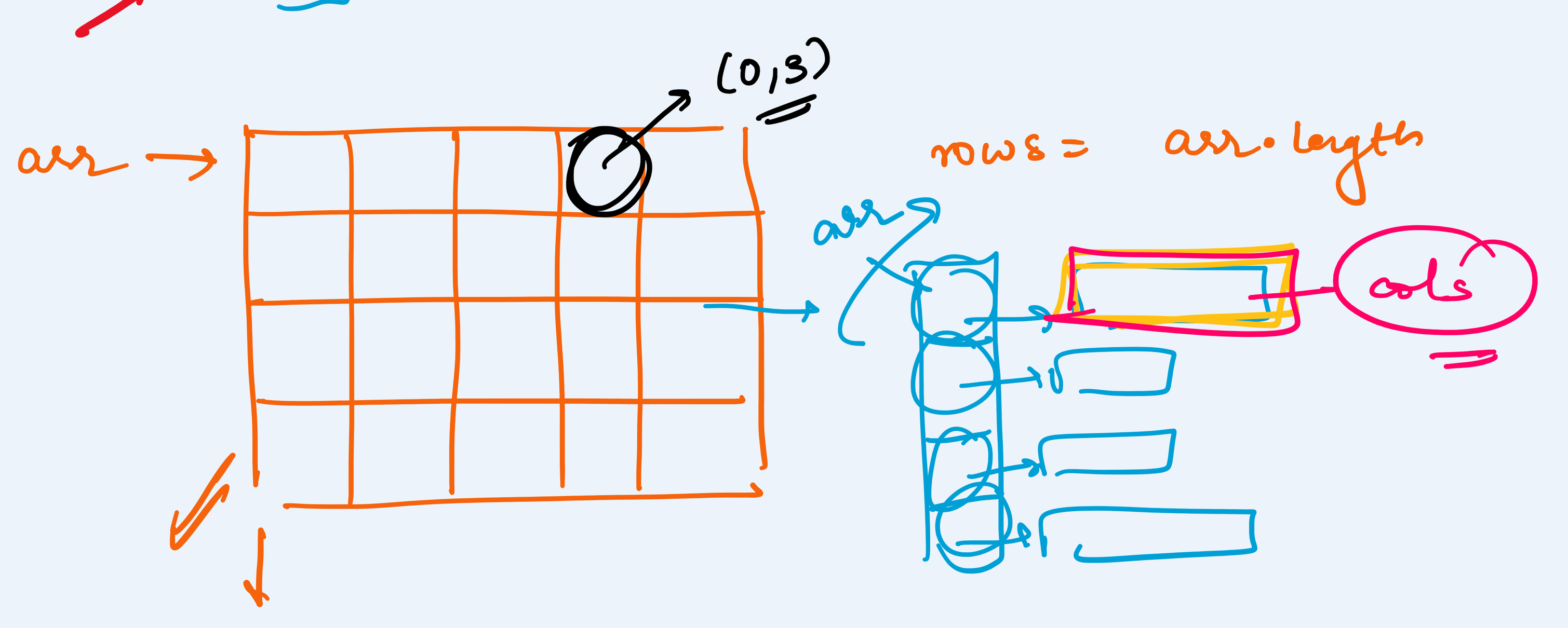


Each row has same no of cols.

Jagged Arrays



Each row has unequal no. of cols.



rows = arr.length

cols = arr[0].length

get → arr[0][3]

Q Horizontal display

10	20	30	40
50	60	70	80
90	100	110	120

Square / Rectangle

output: 10 20 30 40 50 60 70 80 90 100 110 120

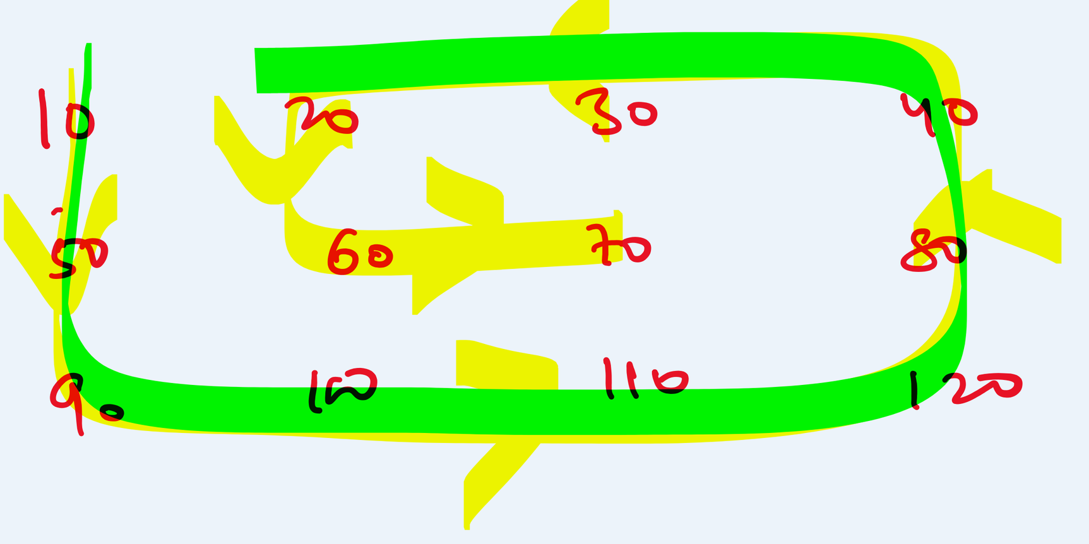
Q Wave display

output: 10 50 90 100 60 20 30 70 110 120 80 40

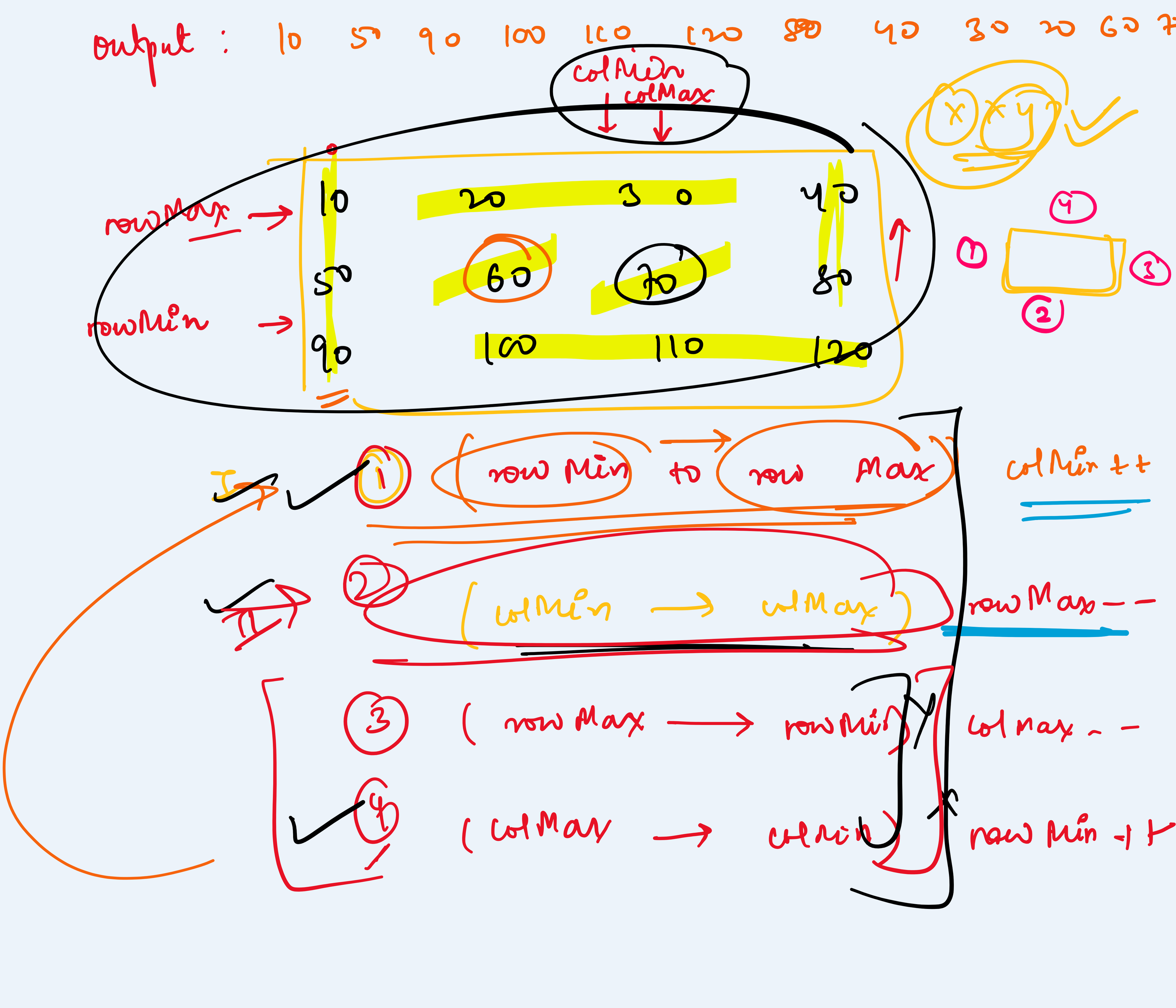
col % 2 == 0
even col → go down

col % 2 != 0
odd col → go up

Q Spiral Display

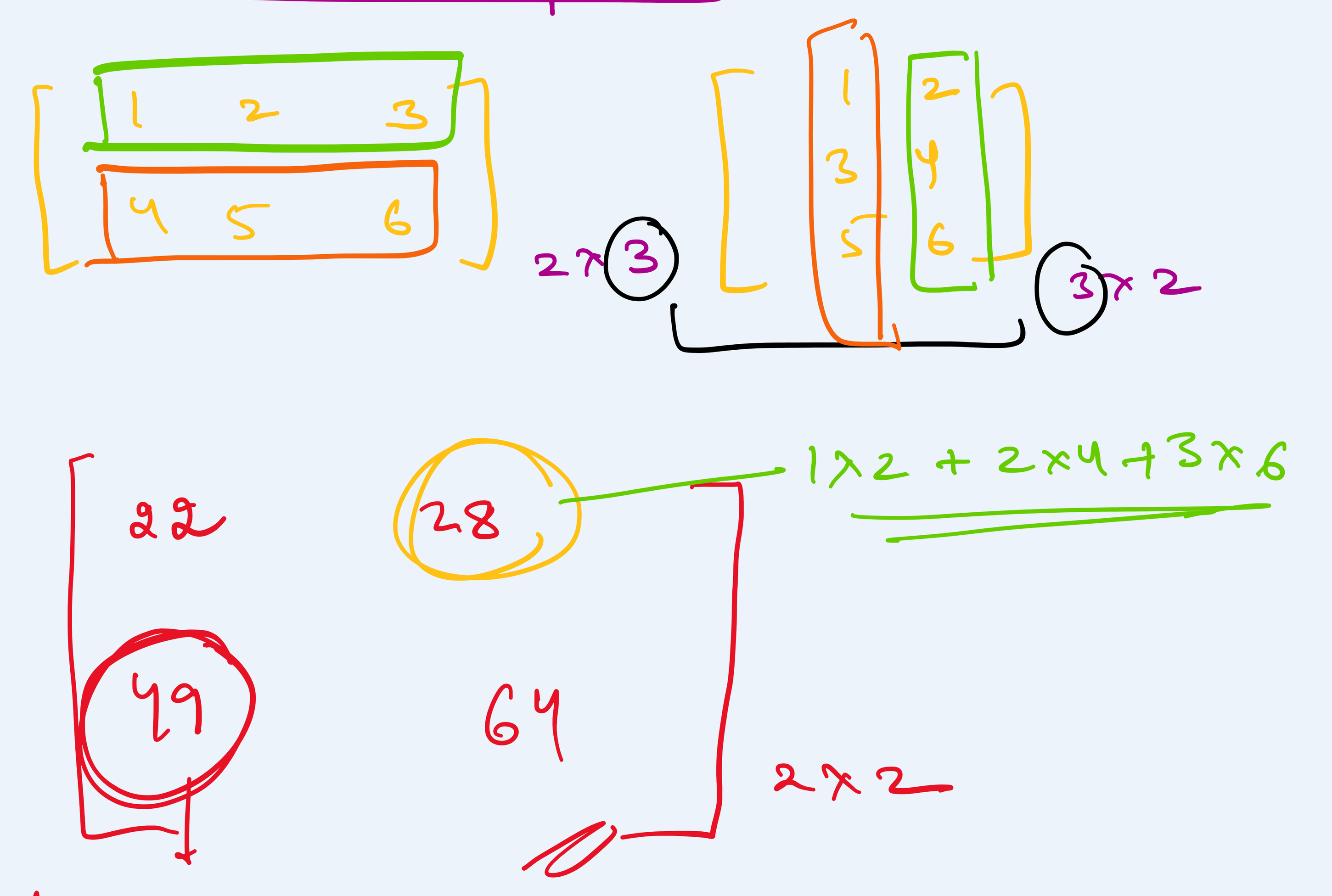


output: 10 50 90 100 110 120 80 40 30 20 60 70



1. row Min to row Max — colMin++
2. colMin → colMax — rowMax--
3. rowMax → rowMin — colMax--
4. colMax → colMin — rowMin++

Q Matrix Multiplication



1×2 + 2×4 + 3×6

4×1 + 5×3 + 6×5