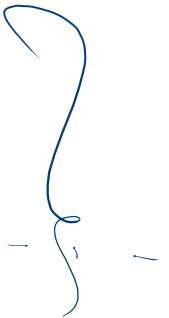
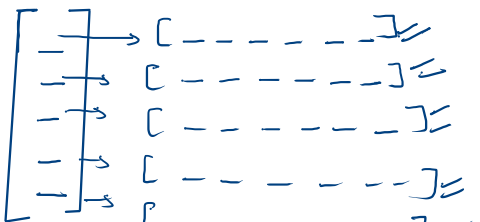
2D Arrays → Collection of 1D Arrays

int[] arr = new int[5];

int[][] arr = new int[5][6]

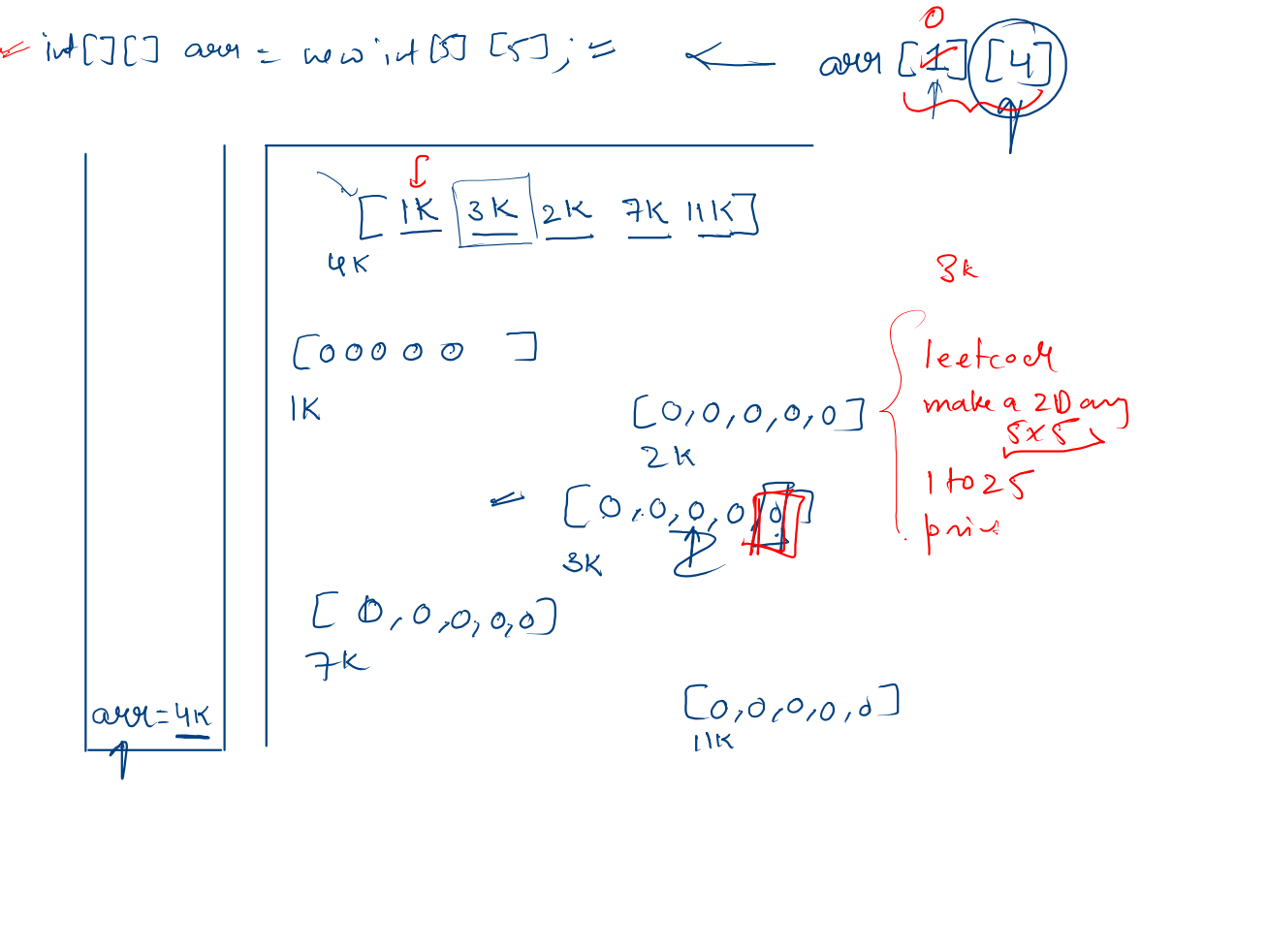


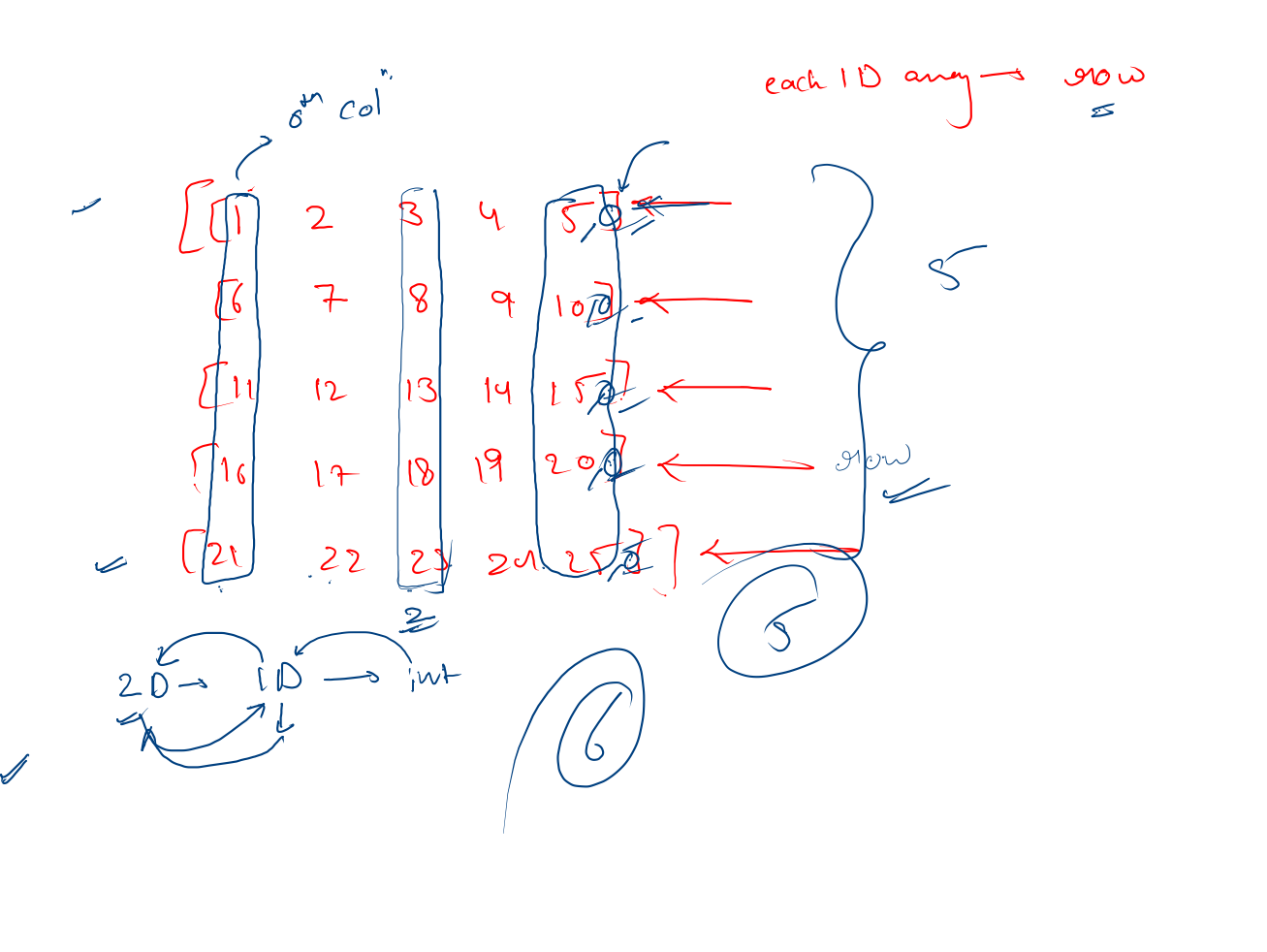
```
int[][] arr = new int[5][6]
```



6 x 5

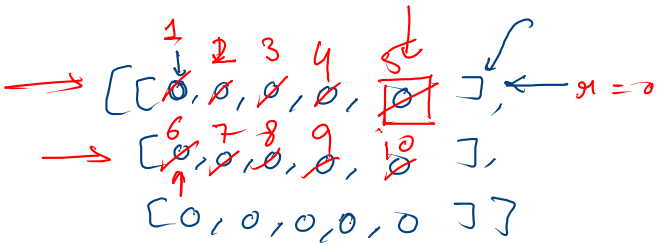
30


int[][] arr = new int[5][5];
arr[1][4]
[1K 3K 2K 7K 11K]
4K
[0 0 0 0 0]
1K
[0,0,0,0,0]
2K
[0,0,0,0,0]
3K
[0,0,0,0,0]
7K
[0,0,0,0,0]
11K
arr=4K
3K
leetcode
make a 2D arr
5x5
1 to 25
prin


each 1D array → row
0th col
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19 20
21 22 23 24 25
row
2D → 1D → int

tr = 3

tc = 5



5 < 5

```
for(int r = 0; r < tr; r ++) {
    for(int c = 0; c < tc; c ++) {
        arr[r][c] = scn.nextInt();
    }
}
```

r = 0 → 1 → 2

c = 0

```
for(int r = 0; r < tr; r ++) {
    for(int c = 0; c < tc; c ++) {
        arr[r][c] = scn.nextInt();
    }
}
```

4 x 5 = 20

0 < 4

c = 0 1 2 3 4 5

c=0 c=1 c=2 c=3 c=4

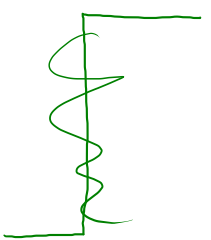
10 20

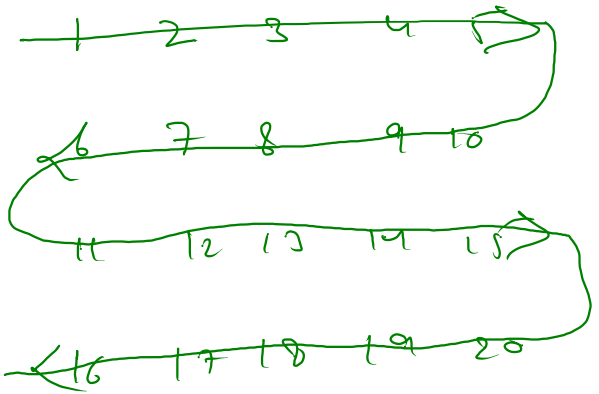
r = 0

r = 1

r = 2

r = 3




1 2 3 4
6 7 8 9 10
11 12 13 14 15
16 17 18 19 20

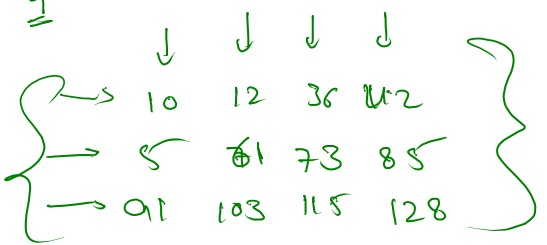
n = 12

10 12 36 42 5 — — 12 =

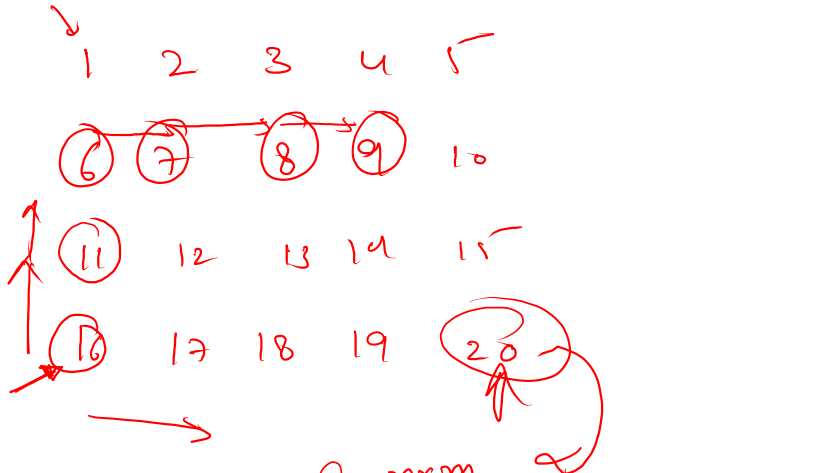
p q

3 4

p x q = n



→ Print the 2D array


1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19 20
n×m
n+m
3+1
9+c

9 coins