
2D ARRAYS

single block / cell

(3x5)

[type]

rows = 3

columns = 5

int

4 bytes

boolean

1 byte

APNA

(rows x cols) x datatypesize

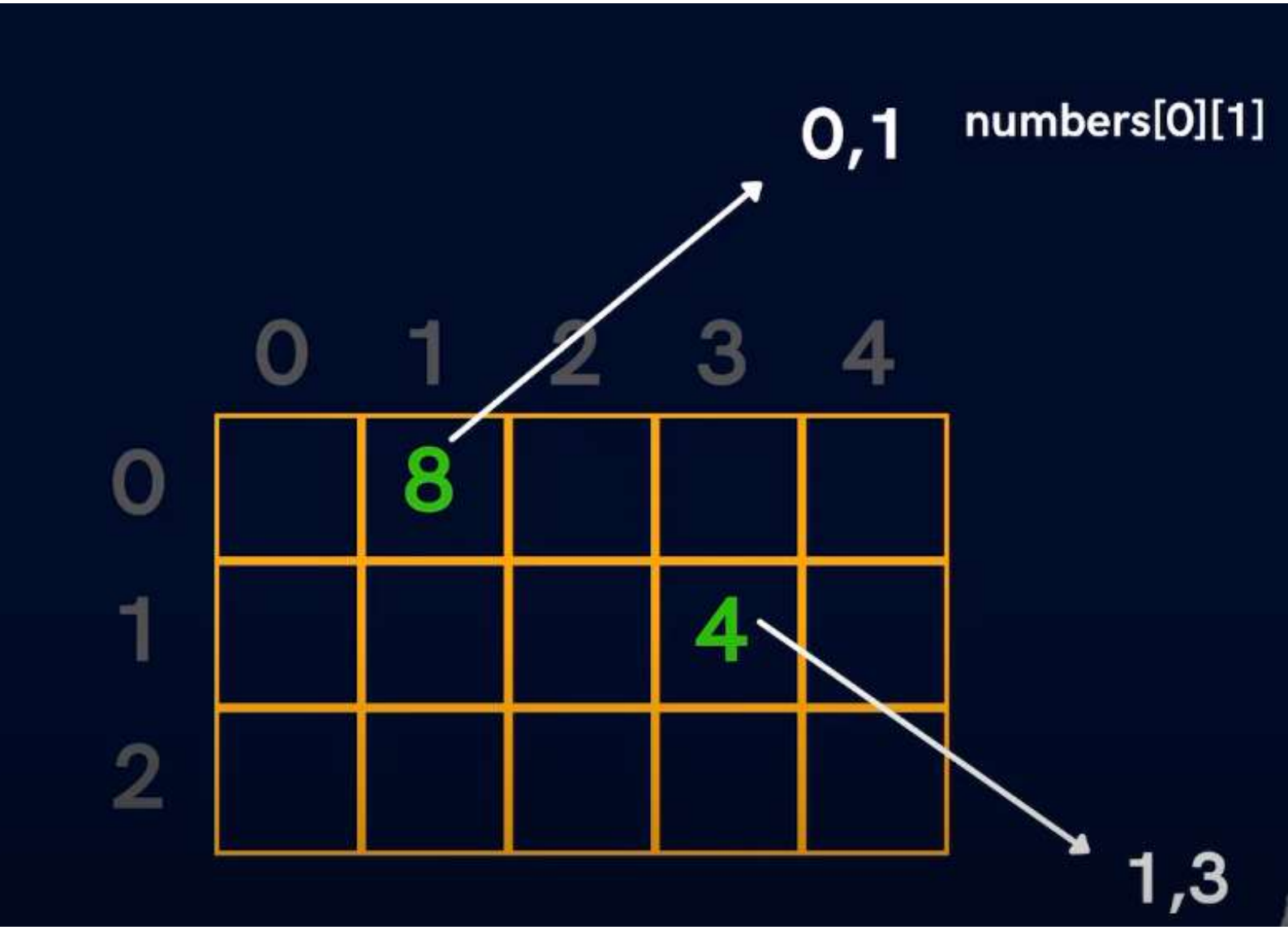
3 x 5 x 4 bytes

Declaration

int[] nu

```
type[ ][ ] arrayName = new type[rows][columns];

int[ ][ ] numbers = new int[3][5];
```


0,1
numbers[0][1]
0 1 2 3 4
0
1
2
8
4
1,3

```java
import java.util.*;

public class TwoDArrays {
    Run | Debug
    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        int rows = sc.nextInt();
        int cols = sc.nextInt();

        int[][] numbers = new int[rows][cols];

        //input
        //rows
        for(int i=0; i<rows; i++) {
            //columns
            for(int j=0; j<cols; j++) {
                numbers[i][j] = sc.nextInt();
            }
        }

        //output
        for(int i=0; i<rows; i++) {
            for(int j=0; j<cols; j++) {
                System.out.print(numbers[i][j] + " ");
            }
            System.out.println();
        }

    }
```

Qs. Take a matrix as input from the user. Search for a given number x and print the indices at which it occurs.