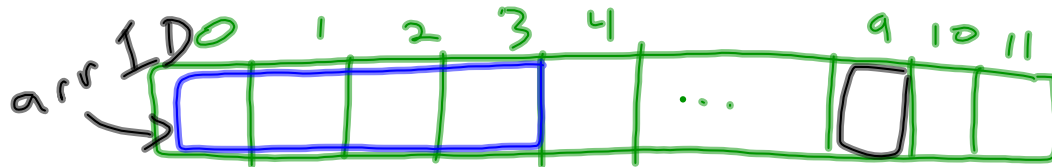


```
int[][] arr2D =
    new int[3][4];
```



translate row, col to an index  
 $row = 2, col = 1 \Rightarrow index = 9$

$$index = row * cols + col$$

```
int get(row, col) {
    return arr2D[row][col];
}
```

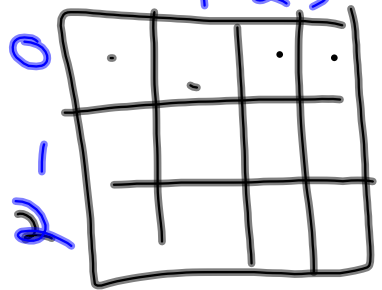
OR

```
int get(row, col) {
    int index = row * cols + col;
    return arr1D[index];
}
```

Translate index  $\Rightarrow$  row col

$$\text{row} = \text{index} / \text{cols};$$

$$\text{col} = \text{index} \% \text{cols};$$



```
cd cs111  
mkdir workspace  
eclipse &
```

