2D Arrays Practice Exercises

int[][] ticketInfo = {{25,20,25}, {25,20,25}};

1) What is the value at seatingInfo[2][1];?

2) int value = ticketInfo[1][0];
   what is the value of value?

3) String name = seatingInfo[0][1];
   What is the value of name?

4) Given int[][] a = {{2, 4, 6, 8}, {1, 2, 3, 4}};
   What instruction should you type to print the number of rows a have?

5) What instruction should you type to print the value at the second row
   and third column in a?

6) Rearrange the following lines of code to find the largest value in a 2D
   array.

   (1) return largest;
   (2) } // end column loop
   (3) int largest = arr[0][0];
   (4) if(arr[r][c] > largest) {
   (5) for(int r = 0; r < arr.length; r++){
   (6) } // end row loop
   (7) } // end if
   (8) public static int getLargest(int[][] arr){
   (9) for(int c = 0; c < arr[r].length; c++){
   (10) } // end method
   (11) largest = arr[r][c];
7) what is the value of sum after this code executes?

```java
int[][] matrix = {{1,1,2,2},{1,2,2,4},{1,2,3,4},{1,4,1,2}};

int sum = 0;
int col = matrix[0].length - 2;
for (int row = 0; row < 4; row++)
{
    sum = sum + matrix[row][col];
}
```

8) What are the contents of arr after the following code has been executed?

```java
int[][] arr = {{3,2,1},{1,2,3}};
int value = 0;
for (int row = 1; row < arr.length; row++) {
    for (int col = 1; col < arr.length; col++) {
        value = arr[row][col];
        if (value % 2 == 1) {arr[row][col] = value + 1;}
        if (arr[row][col] % 2 == 0) {arr[row][col] = value * 2;}
    }
}
```