4. This question involves manipulating a two-dimensional array of integers. You will write two `static` methods of the `ArrayResizer` class, which is shown below.

```
public class ArrayResizer
{
   /** Returns true if and only if every value in row r of array2D is non-zero.
    *  Precondition: r is a valid row index in array2D.
    *  Postcondition: array2D is unchanged.
    */
   public static boolean isNonZeroRow(int[][] array2D, int r)
   {  /* to be implemented in part (a) */  }

   /** Returns the number of rows in array2D that contain all non-zero values.
    *  Postcondition: array2D is unchanged.
    */
   public static int numNonZeroRows(int[][] array2D)
   {  /* implementation not shown */  }

   /** Returns a new, possibly smaller, two-dimensional array that contains only rows
    *  from array2D with no zeros, as described in part (b).
    *  Precondition: array2D contains at least one column and at least one row with no zeros.
    *  Postcondition: array2D is unchanged.
    */
   public static int[][] resize(int[][] array2D)
   {  /* to be implemented in part (b) */  }
}
```

a)
```
public static boolean isNonZeroRow(int[][] array2D, int r){
    for (int i=0 ; i<array2D[0].length; i++){
        if (array2D[r][i] == 0) {
            return false;
        }
    }
    return true;
}
```

b)
```
public static int numNonZeroRows(int[][] array2D){
    int count = 0;
    for(int i = 0 ; i< array2D.length; i++){
        if (isNonZeroRow(array2D, i){
            count++;
        }
    }
    return count;
}
public static int [][] resize (int[][] array2D){
    int[][] listSized = new int [numNonZeroRows(array2D)][array2D[0].length];
    int row = 0;
    for(int i =0; i < array2D.length; i++){
        if (isNonZeroRow(array2D,i)){
            listSized [row] = array2D[i];
            row++;
        }
    }
    return listSized;
}
```