1. Let `grid` be a 2D array of `String`.

   (a) What java statement would you use to find the number of rows in `grid`?

   (b) What java statement would you use to fin the number of columns in `grid`?

   (c) What java statement would you use to get the `String` stored in the third row of the first column of `grid`?

2. Let `board` be a 2D array of `boolean`.

   (a) What Java code snippet would declare `board`?

   (b) What Java code would initialize `board` so that all elements are `true`?

   (c) Recall on homework problem #15 (from November 15, 2023) you made checkerboard pattern by adding the row index and column index and if the sum is even, the color of the square is dark; if the sum is odd, the square is light. Change `board` so that it follows the same "checker board" pattern, only set it to `false` or `true` instead of dark or light.

3. Make the class `MultiplicationTable` which has the following:

   (a) A single instance variable called `table` that will contain any desired number n rows and m columns of `int`

   (b) A constructor that takes two parameters that specifies how many rows and columns that the table should have. (Remember the constructor should initialize the instance variable). Initialize the table so each element contains the product of its row index and its column index.

   (c) A method that returns the number of rows in the table

   (d) A method that returns the number of columns

   (e) A `toString` method the prints the table so that each row is on its own line, and there is a "—" between the columns.