Quiz 12

Name:______________________________

1) Show the output produced by the following code fragment:

```java
int count = 1;
int[][] table = new int[2][3];
for (int i=0; i < 2; i++)
    for (int j=0; j < 3; j++)
    {
        table[i][j] = count;
        count++;
    }

for (int i = 0; i < table.length; i++)
{
    System.out.print( " * " + i + " * ");
    for (int j=0; j < table[i].length; j++)
        System.out.print( table[i][j] + " ");
    System.out.println(" *** ");
}
```

2) Write a method `fill2D()` that creates and returns a 2D array of dimensions n x m, where n, m are int parameters, and the array is filled with consecutive integers starting at 1. For example, if invoked as `fill2D(3,4)` it should return the array:

```
0 1 2 3
1 2 3 4
5 6 7 8
9 10 11 12
```
1) Show the output produced by the following code fragment:

```java
int[][] table = new int[3][3];
for (int i=0; i < 3; i++)
    table[i][i] = i;

for (int i = 0; i < table.length; i++)
    System.out.print(i + " [[ ");

    for (int j=0; j < table[i].length; j++)
        System.out.print( table[i][j] + "::" );

    System.out.println( " ] ]" );
```

2) Write a method `diagonArray()` with one `int` parameter `n` that creates and returns a two dimensional array of size `n x n` that consists of values of type `double` that are all set to zero, except the ones along the diagonal, which are all set to 1. So, for example, if the parameter is 3, the method should return an array with the following contents:

```
0  1  2
0 1.0 0  0
1 0  1.0 0
2 0  0  1.0
```