Assignment 5 2022: DoughnutTower

You are going to write a DoughnutTower game for a toddler!
The aim of the game is to stack 5 doughnuts of the same colour (red/blue/green).

The purpose of this DoughnutTower game assignment is to:
- *Use the provided MyArrayList class and add a method.*
- *Write a StackAsMyArrayclass with the typical methods and two additional methods.*
- *Write an implementation (test) class for the game.*

In order to check if a toddler has stacked the 5 doughnuts successfully, one needs to check if all the doughnuts in the tower are the same colour.

- Find attached the MyArrayList class. Make the following addition in the MyArrayList class (Please use the given naming conventions):

  A generic version of this method:

  - public boolean checkUniform()

    The method should return true if all the doughnuts are identical.

  - Make sure you have an accessor for the instance variable called:

    public int getSize()

- Write the StackAsMyArrayList class with:

  - Push(), Pop(), toString()

  - We are going to add 2 non-typical stack methods (just to make this game work)

    - public int getStackSize() which calls the getSize() method of the MyArrayList class

    - public boolean checkStackUniform() which calls the checkUniform() method of the MyArrayList class

  HINT: The toString() of the stack class calls the toString() of the MyArrayList class

- Write an implementation (test) class for the game.
  - You can use the accompanying output as a guideline.

```
The tower:[]
Size:0
The tower is not full

The tower:[r, r, r, b, b]
Size:5
Correct? false

The tower:[r, r, r]
Size:3
The tower is not full

The tower:[r, r, r, r, r]
Size:5
Correct? true
```