Class Quality Control Code Highlighting EXERCISE

Yellow: Object/Class types | Blue: Method declarations | Underlines: Java Keywords
Orange/Red: Variable Identifiers | Pink: Operators | Green: Method Calls

```
package components.comp1_languageCore.lc3_controlOfFlow;

import java.util.Random;

public class QualityControl {
    final static int QUALITY_TRESHOLD = 65;
    final static int MAX_QUALITY = 100;
    final static int UNITS_TO_MAKE = 10000;

    static int unitQuality = 0;
    static int totalFailures = 0;
    static int totalUnitsMade = 0;

    public static void main(String[] args){
        // make a random number generator
        Random randomGenerator = new Random();
        while(totalUnitsMade < UNITS_TO_MAKE){

            // generate a random number between 0 and 100
            unitQuality = randomGenerator.nextInt(MAX_QUALITY + 1);
            System.out.println("Unit Quality: " + unitQuality);
            // increment our total unit counter
            totalUnitsMade = totalUnitsMade + 1;

            if(unitQuality < QUALITY_TRESHOLD){
                System.out.println("Unit below quality standards!");
                totalFailures = totalFailures + 1;
            } else {
                System.out.println("Unit passes quality test");
            } // close if/else

            System.out.println("Total failures: " + totalFailures +
                    " out of " + totalUnitsMade + " units made");

        } // close while

        // calculate summary statistics with division
        double productionRatio = (double)totalFailures /
                (double)totalUnitsMade;
        // print out summary statistics
        System.out.println("***PRODUCTION SUMMARY***");
        System.out.println("Tested " + totalUnitsMade + " Units.");
        System.out.println("Failure Ratio: " + productionRatio);

    } // close main
} // close class
```