

## APCS-A Alternative Assignments to Pi

All programs should be done in Java/Eclipse

### 2 (S)

Write a POJO class that models a form of candy. Must have 3 fields, getters/setters/3 constructors and a display method. Exercise at least 2 objects of your type in main().

### 4 (M) Quiz Grade

Make your candy class implement an interface called ICandySales that has three abstract methods:

1. ReportNumUnitsSold()
2. CalculateCostofGoodSold(int unitsSold, double costPerUnit)
3. Make up a **UNIQUE** THIRD METHOD (Cannot use same method as anyone else)

You can use the same project as (2), and UPDATE MAIN to exercise the new methods in **both** objects.

**6 (S)** Write a java program that fills a 10 x 10 2 dimensional array with random numbers, then calculates the average value of all the entries in the array.

### 8 (M) Quiz Grade

Write a java program that picks a random number from 0 to 100 and calculates the sum of all numbers from 0 to the number, including the number itself, then subtracts the remaining numbers above the number up to and including 100. So, if for example, the random number selected is 84, it would add up from 0 to 84, then subtract the sum of all numbers from 85 to and including 100.

### 12 (M) Quiz Grade

Write a program in java that fills an array as follows:

01010101

10101010

01010101

10101010

Prints the array as it loops, correctly in rows and columns,

Then subtracts 1 from every even row as it adds one to every odd row **inside the same loop**

**Then prints the new array**