Student Name: _____

Short Exam - after 1 week - EXAMPLE 1

Time: 1 hour
There are 3 questions - you should answer on at least 2 correctly to get 80/100.
(To get 100 you should answer all questions correctly).
Closed materials! if you forgot something and need help, please ask the instructor.

Question 1

Implement a class named "ATM" with the following data:
    (1) Id of the ATM - String
    (2) Current amount of bills for each of the possible bills: 20, 50, 100, 200

Please make sure to use proper access modifiers (private, public etc.)

Implement the following statics methods inside class ATM:
[1] calcTotal
    This method gets as an input:
    -    ArrayList<ATM>   --   a list of ATMs
The method shall return as an output the total value of money in all ATMs.

[2] shouldFill
    This method gets as an input:
    -    ArrayList<ATM>   --   a list of ATMs
The method shall return as an output some representation of all ATMs that need to be refilled (e.g. the ID of the ATM or any other representation that you would choose) and for each - the amount of bills to fill per each kind of bill. This should be done based on a static representation inside class ATM for the minimal required amount in an ATM, for each bill.

Question 2

Implement a Main class with a main method that prints all numbers that it got from the command line which are either divided by 7 or has the digit 7 inside.
Ignore Strings that cannot be converted to Integer numbers.
Use helper methods.
Example: 57 34 35 17 12 14
Should print: 57 35 17 14

Question 3

Implement a class for CookingRecipe with the following attributes:
- Name of the food
- Amount (of dishes) - number (e.g. 4 = the recipe is for 4 persons)
- Instructions - String
- Ingredients - a Map of ingredients: String (ingredient) and Amount

Implement a method "allRecipesContainingIngredient"
The method shall get: List<CookingRecipe>, String Ingredient
The method shall return List<CookingRecipe> with all the recipes that contain the required Ingredient.