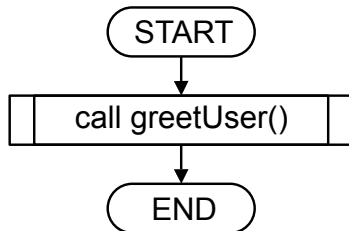


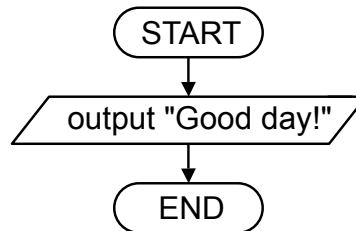
Worksheet: Algorithms and Flowcharts 2

1. The flowcharts below represent an algorithm to greet a user. The algorithm contains a subprocess. Convert the algorithm to Java directly – the main process will be the Java `main` method, and the subprocess must be a method named `greetUser`.

main process



subprocess greetUser



2. Complete this question in the space on the reverse of this paper. Label the question.
 - a) In the space on the back of the page, draw a flowchart that represents a process for printing the full name of a user. The `main` process should call a subprocess named `printFullName` that accepts two inputs, `firstName` and `lastName`, and prints them together as a full name with the first name first and the last name after, with a space between the names.
 - b) Translate the flowchart into Java code. Create a method `printFullName` that takes two input parameters of type `String` (one labeled `firstName` and the other labeled `lastName`), and prints the full name. (Note: the method should not return a value.)
3. Complete this question in the space on the reverse of this paper. Label the question.
 - a) Draw a flowchart that represents a process to calculate the area of a rectangle. The main process should call a subprocess named `calculateArea` that accepts two numerical inputs, called `length` and `width`, and returns the area of the rectangle ($\text{length} \times \text{width}$).
 - b) Translate the flowchart into Java code. Create a method `calculateArea` that returns an integer and is called in the main method. The main method should print the area. Note: you can “hard code” the length and width in the main method – you do not need to get input from the user.