

## Tutorial Sheet

### Part 1: Algorithms

Question 1: What is an algorithm?

Question 2: Name a type of algorithm that is not a program.

Question 3: Algorithms are named after:

- a) Euclid
- b) Brahmagupta
- c) Muhammad ibn Musa al-Khwarizmi
- d) Al Gore

Question 4: Create a flowchart that expresses the following algorithm:

1. Ask the user for their age
2. If the user's age  $\geq 18$ , print "Welcome to Rick's Place"
3. Otherwise, print "Come back when you are of age"
4. Go back to step 1 to serve the next user

Question 5: Create pseudocode for the same algorithm

Question 6: Create a flowchart and pseudocode for the process of getting ready to leave the house in the morning. Include such activities as hitting the snooze button several times, taking a shower, getting dressed, and so on. Make sure to have different procedures depending on whether it is a weekday or weekend.

### Part 2: The Command Line

Question 1: What is the command line used for?

Question 2: What did the command line replace? Why?

Question 3: With GUIs everywhere, why is the command line still in use?

Question 4: What computer had the first GUI?

Question 5: Which key performs auto-complete? Why is auto-complete useful?