

Question 4

Task 4b: *Reporting*

- Evidence that the package performs its intended task.

```
39     obs.add(4.05326982, 3580526.0);
40     obs.add(4.05779662, 3439750.0);
41     obs.add(4.0636168, 2877648.0);
42     obs.add(4.06943698, 2175960.0);
43     obs.add(4.07525716, 1447024.0);
44     obs.add(4.08237071, 717104.0);
45     obs.add(4.08366408, 620014.0);
46
47     Gaussianfitting.calculateFitting(obs);
48
49
50     // Print out result on screen
51     System.out.printf("Normalization factor(alpha) = %f\n", Gaussianfitting.alpha);
52     System.out.printf("Mean(mu) = %f\n", Gaussianfitting.mu);
53     System.out.printf("Sigma = %f\n", Gaussianfitting.sigma);
54
55
56 }
57
58 }
```

mathutils.UnitTest_MarquardtFittingNormal > main >

Output - CW3 (run-single) >

```
ant -f "C:\\\\Users\\\\eexpk16\\\\OneDrive - The University of Nottingham\\\\Documents\\\\NetBeansProjects\\\\CW3" -Djavac..
init:
Deleting: C:\\\\Users\\\\eexpk16\\\\OneDrive - The University of Nottingham\\\\Documents\\\\NetBeansProjects\\\\CW3\\\\build\\\\built-jar\\\\deps-jar\\\\
Updating property file: C:\\\\Users\\\\eexpk16\\\\OneDrive - The University of Nottingham\\\\Documents\\\\NetBeansProjects\\\\CW3\\\\
Compiling 1 source file to C:\\\\Users\\\\eexpk16\\\\OneDrive - The University of Nottingham\\\\Documents\\\\NetBeansProjects\\\\CW3\\\\
compile-single:
run-single:
Normalization factor(alpha) = 3514384.729342
Mean(mu) = 4.054970
Sigma = 0.015029
BUILD SUCCESSFUL (total time: 2 seconds)
```

Here I have used the same test file to check if its working or not from the NETBEANS PROJECT IN MOODLE. I have changed the names to work with my class file what I have written. I have used the static funtion that uses GaussianCurveFitter class to find the values

My class already has alpha, mu and sigma so I have directly addressed them in the system out statement (line 51-53). To return the values

- **AI disclosure:**

No AI was used.