N0.1

```
Resulting parameter estimates are [1  8.3267e-17]
```

The test step models were well recovered since m_{test} = [1 0] is well recovered since $8.327x10^{-17}$ for the second element of the parameter estimate is machine epsilon which is approximately zero hence we attained best resolution of the parameter estimates. This is due to the nature of m_{test} yielding a constant behaviour of the model G

```
Resulting parameter estimates are [0  0]
```

The test step models were not well recovered since m_{test} = [0 1] is not recovered by the output obatined after inversion using the occam's model hence we attained very poor resolution of the parameter estimates. This is due to the nature of m_{test} yielding an exponential behaviour of the model G making it extremely difficult to recover the true estimate.

No.2

```
Resulting parameter estimates are [1  7.9048e-14]
```

The test step models were well recovered since m_{test} = [1 0] is well recovered since $7.90x10^{-14}$ is approximately zero for the second element of the estimates even in the presence of noise hence we attained best resolution of the parameter estimates, even though the noise affects the accuracy of the second element of the yeilded estimate. This is due to the nature of m_{test} yielding a constant behaviour of the model G and introduction of noise to the data.

```
Resulting parameter estimates are [1.0898e-13  3.5583e-11]
```

The test step models were not well recovered since m_{test} = [0 1] is not recovered by the output obatined after inversion using the occam's model hence we attained poor resolution of the parameter estimates. This is due to the nature of m_{test} yielding an exponential behaviour of the model G and introduction of noise to the data

No.3

```
Resulting parameter estimates are [1.0463   -0.015067]
```

The value of σ significantly affects the output since this impacts the noise, so on increasing its value, the test step models were not so perfectly recovered since m_{test} = [1 0] is not well recovered, but however close to the true estimate. Therefore we attained good resolution of the parameter estimates, even though the noise affects the accuracy of both elements of the yeilded estimate. This is due to the nature of m_{test} yielding a constant behaviour of the model G and increase in the value of σ which increased the noise to the data.

```
Resulting parameter estimates are [-0.0071987     0.22209]
```

The test step models were not well recovered since m_{test} = [0 1] is not recovered by the output obatined after inversion using the occam's model hence we attained poor resolution of the parameter estimates. This is due to the nature of m_{test} yielding an exponential behaviour of the model G and increase in the value of σ which increased the noise to the data.