

IT2120 - Probability and Statistics

Lab Sheet 09

IT24104028

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Exercise

1.

```
1 setwd("C:\\Users\\CHAMA COMPUTERS\\OneDrive\\Documents\\SLIIT SEMESTER 3\\PROBABILITY AND
2
3 #1
4 baking_time <- rnorm(25, mean = 45, sd = 2)
5 baking_time

> setwd("C:\\Users\\CHAMA COMPUTERS\\OneDrive\\Documents\\SLIIT SEMESTER 3\\PROBABILITY AND
STATISTICS\\LAB\\IT24104028")
> #1
> baking_time <- rnorm(25, mean = 45, sd = 2)
> baking_time
[1] 46.29905 45.10839 46.22113 51.51581 47.26151 43.34935 46.71518 47.09711 48.14197
[10] 42.94015 43.96966 47.83382 45.38254 48.24767 45.95925 49.34289 45.06927 46.33232
[19] 46.92961 45.37808 45.53112 40.09184 44.35394 40.94816 48.21691
```

2.

```
6
7 #2
8 test_result <- t.test(baking_time, mu = 46, alternative = "less")
9
10 print(test_result)
11
```

```
> #2
> test_result <- t.test(baking_time, mu = 46, alternative = "less")
```

```
> print(test_result)
```

```
One Sample t-test
```

```
data: baking_time
```

```
t = -0.14101, df = 24, p-value = 0.4445
```

```
alternative hypothesis: true mean is less than 46
```

```
95 percent confidence interval:
```

```
-Inf 46.78523
```

```
sample estimates:
```

```
mean of x
```

```
45.92947
```