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Module Code: IT2120

Lab Sheet: 09

Exercise

1. Assume that the time taken to bake a batch of cookies is normally distributed with mean 45 minutes and standard deviation 2 minutes.

i. Generate a random sample of size 25 for the baking time.

```
data <- rnorm(25, mean = 45, sd = 2)
```

ii. Test whether the average baking time is less than 46 minutes at a 5% level of significance.

```
t.test(data, mu = 46, alternative = "less")
```

One Sample t-test

```
data: data
t = -1.005, df = 24, p-value = 0.1625
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
 -Inf 46.31628
sample estimates:
mean of x
 45.54968
```