

IT24103397

Lab sheet 09

```
R 4.3.1 - C:/Users/sana/Desktop/IT24103397
> setwd("C:\\Users\\sana\\Desktop\\IT24103397")
> # Set seed for reproducibility
> set.seed(123)
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> # Part (i) Generate random sample
> sample_size <- 25
> # Part (i) Generate random sample
> sample_size <- 25
> mu <- 45
> sigma <- 2
> baking_times <- rnorm(sample_size, mean = mu, sd = sigma)
> print(baking_times)
[1] 43.87905 44.53965 48.11742 45.14102 45.25858 48.43013 45.92183 42.46988 43.62629 44.10868 47.44816 45.71963
[13] 45.80154 45.22137 43.88832 48.57383 45.99570 41.06677 46.40271 44.05442 42.86435 44.56405 42.94799 43.54222
[25] 43.74992
> t_test_result <- t.test(baking_times, mu = 46, alternative = "less")
> t_test_result <- t.test(baking_times, mu = 46, alternative = "less")
> t_test_result <- t.test(baking_times, mu = 46, alternative = "less")
> t_test_result <- t.test(baking_times, mu = 46, alternative = "less")
> print(t_test_result)

One Sample t-test

data:  baking_times
t = -2.8167, df = 24, p-value = 0.004776
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
 -Inf 45.58124
sample estimates:
mean of x
 44.93334

> |
```