IT24101418 : Lab- 09

```r
#Exercise
# i. Generate a random sample of size 25 for the baking time.
bake <- rnorm(25, mean = 45, sd = 2)

#view sample
bake

#ii. Test whether the average baking time is less than 46 minutes at a 5% level of
#significance.
res <- t.test(bake, mu = 46, alternative = "less")

#view results
res

# Extract specific values
res$statistic
res$p.value
res$conf.int
```

```
> #Exercise
> # i. Generate a random sample of size 25 for the baking time.
> bake <- rnorm(25, mean = 45, sd = 2)
>
> #view sample
> bake
 [1] 51.27659 46.47378 46.07847 42.33508 45.11854 44.71674 43.96159 43.64694
 [9] 44.23919 42.89161 41.68534 42.19108 45.25650 45.79368 39.64350 43.71368
[17] 43.62548 46.40798 44.84779 41.38129 43.25044 41.60915 47.87186 41.72680
[25] 47.30621
>
> #ii. Test whether the average baking time is less than 46 minutes at a 5% level of
> #significance.
> res <- t.test(bake, mu = 46, alternative = "less")
>
> #view results
> res

        One Sample t-test

data:  bake
t = -3.4278, df = 24, p-value = 0.001101
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
     -Inf 45.13946
sample estimates:
mean of x
 44.28197

>
> # Extract specific values
> res$statistic
        t
-3.427849
> res$p.value
[1] 0.001100736
> res$conf.int
[1]     -Inf 45.13946
attr(,"conf.level")
[1] 0.95
>
```