Probability And Statistics

Labsheet-09

IT24103676

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IT 24103676.R

Source on Save | Run | Source

```
1  setwd("C:\\Users\\HP\\Desktop\\IT 24103676")
2  getwd()
3
4  set.seed(123)
5  sample_size<-25
6  mu<-45
7  sigma<-2
8  baking_times<-rnorm(sample_size, mean=mu, sd=sigma)
9  print(baking_times)
10
11
12 t_test_result<-t.test(baking_times, mu=46, alternative="less")
13 print(t_test_result)
14
```

```
> setwd("C:\\Users\\HP\\Desktop\\IT 24103676")
> getwd()
[1] "C:/Users/HP/Desktop/IT 24103676"
> set.seed(123)
> 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
 [9] 43.62629 44.10868 47.44816 45.71963 45.80154 45.22137 43.88832 48.57383
[17] 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")
> 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
```