Ayendri V.L – IT23286146

PS Lab 9

C:\Users\Hp\Desktop\IT23286146\IT23286146_Lab9.R - R Editor

```
getwd()
setwd("C://Users//Hp//Desktop//IT23286146")
getwd()
x<-c(3,7,11,0,7,0,4,5,6,2)
t.test(x,mu=3)

weight <-c(17.6,20.6,22.2,15.3,20.9,21.0,18.9,18.9,18.2)
t.test(weight,mu=25,alternative="less")

res<-t.test(weight,mu=25,alternative="less")
res$statistic
res$p.value
res$conf.int



#exercise
y<-rnorm(25,mean=45,sd=2)
print(y)
t_test_result<-t.test(y,mu=46,alternative="less")
print(t_test_result)
```

```
> > > setwd("C://Users//Hp//Desktop//IT23286146")
> getwd()
[1] "C:/Users/Hp/Desktop/IT23286146"
> x<-c(3,7,11,0,7,0,4,5,6,2)
> t.test(x,mu=3)

        One Sample t-test

data:  x
t = 1.3789, df = 9, p-value = 0.2012
alternative hypothesis: true mean is not equal to 3
95 percent confidence interval:
 2.0392 6.9608
sample estimates:
mean of x
      4.5

>
> weight <-c(17.6,20.6,22.2,15.3,20.9,21.0,18.9,18.9,18.2)
> t.test(weight,mu=25,alternative="less")

        One Sample t-test

data:  weight
t = -8.0802, df = 8, p-value = 2.032e-05
alternative hypothesis: true mean is less than 25
95 percent confidence interval:
     -Inf 20.60322
sample estimates:
mean of x
 19.28889
```

```
> res<-t.test(weight,mu=25,alternative="less")
> res$statistic
        t
-8.080223
> res$p.value
[1] 2.031945e-05
> res$conf.int
[1]     -Inf 20.60322
attr(,"conf.level")
[1] 0.95
>
>
>
>
> #exercise
> y<-rnorm(25,mean=45,sd=2)
> print(y)
 [1] 44.51366 40.91412 46.99643 43.67277 44.87077 47.69497 48.84661 45.33478
 [9] 44.03536 46.15739 44.34906 45.45487 42.96941 44.15535 43.21659 45.47392
[17] 45.58488 41.24556 46.26044 44.17012 44.95582 45.48398 44.05650 47.80132
[25] 44.33109
> t_test_result<-t.test(y,mu=46,alternative="less")
> print(t_test_result)

        One Sample t-test

data:  y
t = -2.9723, df = 24, p-value = 0.003314
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
     -Inf 45.53395
sample estimates:
mean of x
 44.90183
```