exercicio-respondido-aula-10.R

Rezen

2024-10-23

```
#1)
periodico <-c (19.8, 15.4, 11.4, 19.5, 10.1, 18.5, 14.1, 8.8, 14.9, 7.9, 17.6, 13.6,
               7.5, 12.7, 16.7, 11.9, 15.4, 11.9, 15.8, 11.4, 15.4, 11.4)
mpa <- 10
t.test(periodico,
       mu= mpa,
       conf.level = 0.95,
       alternative= "greater")
```

```
##
##  One Sample t-test
##
## data:  periodico
## t = 4.9017, df = 21, p-value = 3.781e-05
## alternative hypothesis: true mean is greater than 10
## 95 percent confidence interval:
##  12.40996      Inf
## sample estimates:
## mean of x
##  13.71364
```

```
print('carga excedida')
```

```
## [1] "carga excedida"
```

```
#2)
catalisador1 <-c(91.5, 94.18, 92.18, 95.39, 91.79, 89.07, 94.72, 89.21)
catalisador2 <- c(89.19, 90.95, 90.46, 93.21, 97.19, 97.04, 91.07, 92.75)
t.test(catalisador1, catalisador2,
       alternative = "greater",
       var.equal = T)
```

```
##
##  Two Sample t-test
##
## data:  catalisador1 and catalisador2
## t = -0.35359, df = 14, p-value = 0.6355
## alternative hypothesis: true difference in means is greater than 0
## 95 percent confidence interval:
##  -2.856027       Inf
```

```
## sample estimates:
## mean of x mean of y
##   92.2550   92.7325
```

```
print(t.test)
```

```
## function (x, ...)
## UseMethod("t.test")
## <bytecode: 0x000002872be10730>
## <environment: namespace:stats>
```

```
print('A diferença entre or redimentos médiodo catalisador 1 é maior que o catalisador 2.
      Porém as diferença do rendimento médio é bem pequena')
```

```
## [1] "A diferença entre or redimentos médiodo catalisador 1 é maior que o catalisador 2.\n      Porém
```

```
#4)
carga<-c(19.8, 15.4, 11.4, 19.5, 10.1, 18.5, 14.1, 8.8, 14.9, 7.9, 17.6, 13.6,
         7.5, 12.7, 16.7, 11.9, 15.4, 11.9, 15.8, 11.4, 15.4, 11.4)
shapiro.test(carga)
```

```
##
##  Shapiro-Wilk normality test
##
## data:  carga
## W = 0.96981, p-value = 0.7067
```

```
print(shapiro.test)
```

```
## function (x)
## {
##     DNAME <- deparse1(substitute(x))
##     stopifnot(is.numeric(x))
##     x <- sort(x[complete.cases(x)])
##     n <- length(x)
##     if (is.na(n) || n < 3L || n > 5000L)
##         stop("sample size must be between 3 and 5000")
##     rng <- x[n] - x[1L]
##     if (rng == 0)
##         stop("all 'x' values are identical")
##     if (rng < 1e-10)
##         x <- x/rng
##     res <- .Call(C_SWilk, x)
##     RVAL <- list(statistic = c(W = res[1]), p.value = res[2],
##         method = "Shapiro-Wilk normality test", data.name = DNAME)
##     class(RVAL) <- "htest"
##     return(RVAL)
## }
## <bytecode: 0x000002872c2260a0>
## <environment: namespace:stats>
```