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| > setwd("M:/My Documents/math1150\_stats/t-test")  > getwd()  [1] "M:/My Documents/math1150\_stats/t-test"  > library(ggplot2)  > library(pastecs)  > library(reshape)  > library(Hmisc)  > library(WRS)  > library(psych)  > imageDirectory <- "M:/My Documents/math1150\_stats/t-test/images\_t-test"  > employeeSatisfactionData <- read.csv("Employee\_Satisfaction.csv", header = TRUE)  > t.test(employeeSatisfactionData$average\_monthly\_hours, mu = 160)  One Sample t-test  data: employeeSatisfactionData$average\_monthly\_hours  t = 100.67, df = 14999, p-value < 2.2e-16  alternative hypothesis: true mean is not equal to 160  95 percent confidence interval:  200.2507 201.8492  sample estimates:  mean of x  201.0499  > describe(employeeSatisfactionData$average\_monthly\_hours)  vars n mean sd median trimmed mad min max range skew kurtosis se  X1 1 15000 201.05 49.94 200 200.64 65.23 96 310 214 0.05 -1.14 0.41  > t.test(employeeSatisfactionData$last\_evaluation\_score, mu = .715)  One Sample t-test  data: employeeSatisfactionData$last\_evaluation\_score  t = 0.78757, df = 14999, p-value = 0.431  alternative hypothesis: true mean is not equal to 0.715  95 percent confidence interval:  0.7133613 0.7188400  sample estimates:  mean of x  0.7161007  > describe(employeeSatisfactionData$last\_evaluation\_score)  vars n mean sd median trimmed mad min max range skew kurtosis se  X1 1 15000 0.72 0.17 0.72 0.72 0.22 0.36 1 0.64 -0.03 -1.24 0  > t.test(employeeSatisfactionData$last\_evaluation\_score, mu = .715, alternative = "greater")  One Sample t-test  data: employeeSatisfactionData$last\_evaluation\_score  t = 0.78757, df = 14999, p-value = 0.2155  alternative hypothesis: true mean is greater than 0.715  95 percent confidence interval:  0.7138018 Inf  sample estimates:  mean of x  0.7161007  > describe(employeeSatisfactionData$last\_evaluation\_score)  vars n mean sd median trimmed mad min max range skew kurtosis se  X1 1 15000 0.72 0.17 0.72 0.72 0.22 0.36 1 0.64 -0.03 -1.24 0  > t.test(employeeSatisfactionData$last\_evaluation\_score, mu = .71, alternative = "greater")  One Sample t-test  data: employeeSatisfactionData$last\_evaluation\_score  t = 4.3653, df = 14999, p-value = 6.391e-06  alternative hypothesis: true mean is greater than 0.71  95 percent confidence interval:  0.7138018 Inf  sample estimates:  mean of x  0.7161007  > describe(employeeSatisfactionData$last\_evaluation\_score)  vars n mean sd median trimmed mad min max range skew kurtosis se  X1 1 15000 0.72 0.17 0.72 0.72 0.22 0.36 1 0.64 -0.03 -1.24 0  > t.test(employeeSatisfactionData$last\_evaluation\_score, mu = .71, alternative = "greater", conf.level = 0.99)  One Sample t-test  data: employeeSatisfactionData$last\_evaluation\_score  t = 4.3653, df = 14999, p-value = 6.391e-06  alternative hypothesis: true mean is greater than 0.71  99 percent confidence interval:  0.7128491 Inf  sample estimates:  mean of x  0.7161007  > describe(employeeSatisfactionData$last\_evaluation\_score)  vars n mean sd median trimmed mad min max range skew kurtosis se  X1 1 15000 0.72 0.17 0.72 0.72 0.22 0.36 1 0.64 -0.03 -1.24 0  > # 95% confidence level  > t.test(employeeSatisfactionData$years\_spent\_at\_company, alternative = "greater", mu = 3.475)  One Sample t-test  data: employeeSatisfactionData$years\_spent\_at\_company  t = 1.946, df = 14999, p-value = 0.02583  alternative hypothesis: true mean is greater than 3.475  95 percent confidence interval:  3.478589 Inf  sample estimates:  mean of x  3.4982  > describe(employeeSatisfactionData$years\_spent\_at\_company)  vars n mean sd median trimmed mad min max range skew kurtosis se  X1 1 15000 3.5 1.46 3 3.28 1.48 2 10 8 1.85 4.77 0.01  > # 90% confidence level  > t.test(employeeSatisfactionData$years\_spent\_at\_company, mu = 3.475, alternative = "greater", conf.level = 0.90)  One Sample t-test  data: employeeSatisfactionData$years\_spent\_at\_company  t = 1.946, df = 14999, p-value = 0.02583  alternative hypothesis: true mean is greater than 3.475  90 percent confidence interval:  3.482921 Inf  sample estimates:  mean of x  3.4982  > describe(employeeSatisfactionData$years\_spent\_at\_company)  vars n mean sd median trimmed mad min max range skew kurtosis se  X1 1 15000 3.5 1.46 3 3.28 1.48 2 10 8 1.85 4.77 0.01 |
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