1. racetimes25=TenMileRace$net[sample(1:8636, 25)]

t.test(racetimes25)

x20…

S is when mean is not within range of confidence interval.

S | F

0 | 20

little bit of bad luck :(

1. maleCats=filter(cats, cats$Sex == "M")

femaleCats=filter(cats, cats$Sex == "F")

t.test(maleCats$Bwt[sample(1:97)])

One Sample t-test

data: maleCats$Bwt[sample(1:97)]

t = 61.097, df = 96, p-value < 2.2e-16

alternative hypothesis: true mean is not equal to 0

95 percent confidence interval:

2.805781 2.994219

sample estimates:

mean of x

2.9

normal distributions have a mean within 2.805781 and 2.994219. The sample mean is a true mean.

t.test(femaleCats$Bwt[sample(1:47)])

One Sample t-test

data: femaleCats$Bwt[sample(1:47)]

t = 59.041, df = 46, p-value < 2.2e-16

alternative hypothesis: true mean is not equal to 0

95 percent confidence interval:

2.279129 2.440020

sample estimates:

mean of x

2.359574

normal distributions have a mean within 2.279129 and 2.440020. The sample mean is a true mean.

t.test(maleCats$Hwt[sample(1:97)])

One Sample t-test

data: maleCats$Hwt[sample(1:97)]

t = 43.864, df = 96, p-value < 2.2e-16

alternative hypothesis: true mean is not equal to 0

95 percent confidence interval:

10.81030 11.83506

sample estimates:

mean of x

11.32268

normal distributions have a mean within 10.81030 and 11.83506. The sample mean is a true mean.

t.test(femaleCats$Hwt[sample(1:47)])

One Sample t-test

data: femaleCats$Hwt[sample(1:47)]

t = 46.467, df = 46, p-value < 2.2e-16

alternative hypothesis: true mean is not equal to 0

95 percent confidence interval:

8.803502 9.600753

sample estimates:

mean of x

9.202128

normal distributions have a mean within 8.803502 and 9.600753. The sample mean is a true mean.

1. a. t.test(TenMileRace$net[sample(1:8636, 30)])

One Sample t-test

data: TenMileRace$net[sample(1:8636, 30)]

t = 32.25, df = 29, p-value < 2.2e-16

alternative hypothesis: true mean is not equal to 0

95 percent confidence interval:

5217.257 5923.810

sample estimates:

mean of x

5570.533

normal results have a mean within 5217.257 and 5923.810. The sample mean is a true mean.

b. t.test(TenMileRace$net[sample(1:8636, 230)])

One Sample t-test

data: TenMileRace$net[sample(1:8636, 230)]

t = 90.525, df = 229, p-value < 2.2e-16

alternative hypothesis: true mean is not equal to 0

95 percent confidence interval:

5470.033 5713.454

sample estimates:

mean of x

5591.743

normal results have a mean within 5470.033 and 5713.454. The sample mean is a true mean.

c. t.test(TenMileRace$net[sample(1:8636, 430)])

One Sample t-test

data: TenMileRace$net[sample(1:8636, 430)]

t = 119.32, df = 429, p-value < 2.2e-16

alternative hypothesis: true mean is not equal to 0

95 percent confidence interval:

5528.877 5714.072

sample estimates:

mean of x

5621.474

normal results have a mean within 5528.877 and 5714.072. The sample mean is a true mean.

1. use function confidenceQ4 for this question’s answer
2. use function confidence for this question’s answer
3. use function confidence for this question’s answer