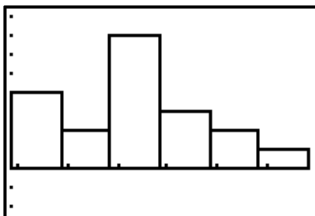


Student's t-Distributions – Given Data

Perform the t-Test...



Enter the data you're given into **L1**.

Set up **STATPLOT** to create a histogram of the data so you can check the Nearly Normal condition – unimodal and roughly symmetric.

```
EDIT CALC TESTS
1:Z-Test...
2:T-Test...
3:2-SampZTest...
4:2-SampTTest...
5:1-PropZTest...
6:2-PropZTest...
7:ZInterval...
```

Under **STAT, TESTS**, choose **2:T-Test**.

Tell the calculator you want to use the stored **Data**. Enter the mean of the null hypothesis.

```
T-Test
Inpt:Data Stats
μ₀:10
List:L₁
Freq:1
μ:≠μ₀ <μ₀ >μ₀
Calculate Draw
```

Indicate where the data are and select the **Frequency**.

Choose the correct tail test and **Calculate**.

The t and the p-value magically appear! ☺

```
T-Test
μ<10
t=-3.49009845
P=.0012248854
x̄=9.845
Sx=.1986136159
n=20
```

Now get the confidence interval...

```
TInterval
Inpt:Data Stats
List:L₁
Freq:1
C-Level:.95
Calculate
```

Under **STAT, TESTS**, choose **8:TInterval**.

Select **Data**, indicate where the data are, select the **Frequency**, and the **C-Level** you'd like.

Calculate.

```
TInterval
(9.752,9.938)
x̄=9.845
Sx=.1986136159
n=20
```

In addition to displaying the confidence interval, you are given \bar{x} , which is the mean of your sample. (This value is needed on the graph in the “Mechanics” portion.)

You also have the sample standard deviation, Sx .

Student's t-Distributions – No Given Data

Perform the t-Test...

```
T-Test
Inpt:Data Stats
μ₀:18
x̄:16.352
Sx: .145896523
n:12
μ≠μ₀ <μ₀ >μ₀
Calculate Draw
```

Under **STATS TESTS**, choose **2:T-Test**.

Tell the calculator you want to enter the **Stats** that you have. Enter the mean of the null hypothesis, the sample mean (\bar{x}), the sample standard deviation (**Sx**), and the sample size (**n**).

```
T-Test
μ>18
t=-39.12937296
P=1
x̄=16.352
Sx=.145896523
n=12
```

Choose the correct tail test and **Calculate**.

The t and the p-value magically appear! ☺

Now get the confidence interval...

```
TInterval
Inpt:Data Stats
x̄:16.352
Sx: .145896523
n:12
C-Level: .95
Calculate
```

Under **STAT, TESTS**, choose **8:TInterval**.

Select **Stats**, enter the sample mean (\bar{x}), the sample standard deviation (**Sx**), and the sample size (**n**).

Calculate.

```
TInterval
(16.259,16.445)
x̄=16.352
Sx=.145896523
n=12
```