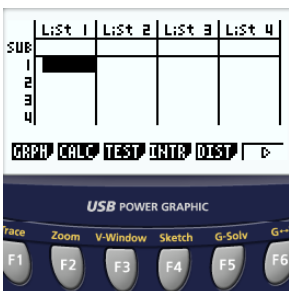
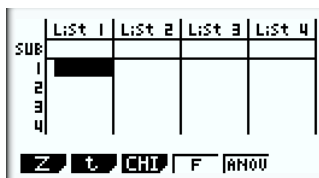


Hypothesis Testing by CASIO Graphing Calculators (9750GII or 9860GII):

**Note:** the calculator output once the test is completed shows the p value. It appears as a small p equal to a value. That is all we need to draw a conclusion about a particular test. If p-value is less than stated  $\alpha$  we reject the Null; otherwise, we fail to reject the Null.

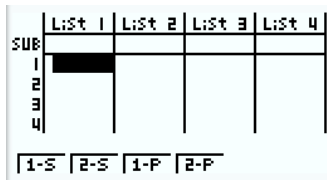


From main STAT screen press F3 for TEST:



Press F1 and choose Z for Proportions or for means when  $\sigma$  is known; otherwise, choose F2, t.

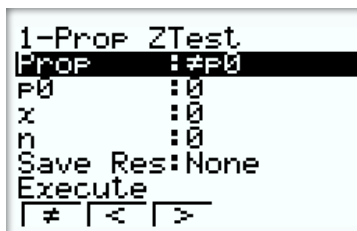
Pressing F1 we get:



1-S stand for one-sample mean, 2-S, two sample means and 1-P for one Proportion while 2-P for two proportions.

Since F1 or Z was chosen, 1-S and 2-S correspond to testing a mean when  $\sigma$ , the population standard deviation is known; by choosing 1-P or 2-P we access 1-Proportion or 2-Proportions tests.

Choosing 1-P the new screen appears:



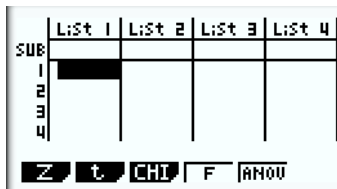
Select the symbol of the alternative hypothesis; then enter P0, the population proportion as stated on the Null, x and n correspond to sample data.

The output looks as follows:

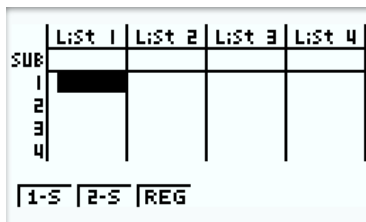
```
1-Prop ZTest
Prop#0.5
z   =-1.8
P   =0.07186063
p̂   =0.41
n   =100
```

Z is the test statistic; p = 0.07186, is the p-value.

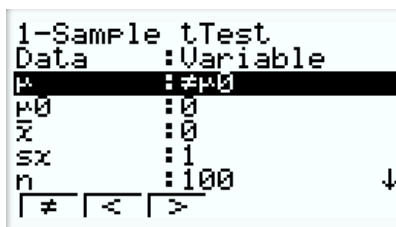
For a t-Test, we choose F2:



Which displays:



Where 1-S is one sample T-test, and 2-S, Two samples T-Test. Let's take a look to 1-Sample T-Test by pressing F1:



Select the symbol that correspond to the Alternative Hypothesis; enter the population mean,  $\mu_0$ , as stated on the Null and then update the sample data: sample mean, sample standard deviation and sample size. Hit EXE to see the output of the test. Draw your conclusions based on the p-value.