Confidence Intervals 2-S type.

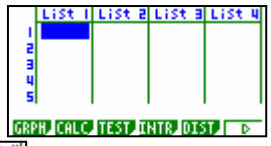
[N.B. This worksheet is for the CFX9850 GB Plus, FX9750 G Plus and the Algebra 2.0 graphic calculators only.]

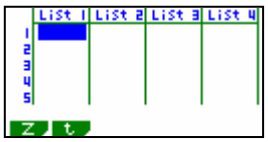
Select STAT mode from the main menu by using the arrow keys to highlight the STAT icon or pressing 2.

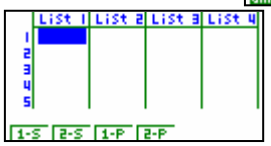
Example: Consider the following collected statistics. Two samples were taken of worm lengths at different areas of a market garden. Test at the 90% confidence level, to see if there is a statistical difference between the worm lengths of two samples.

Sample 1	Sample 2
n = 45	n = 80
Mean = 5.4	Mean = 5.3
Standard deviation = 1.2	Standard deviation = 1.15

Answer: Enter into the statistics icon. Choose **INTR F4,** then **F1** for **Z score.**





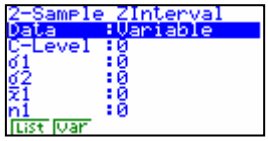


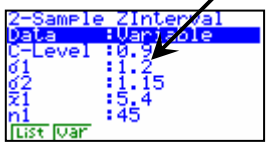
You now have a choice of 4 different options of confidence intervals. 1-S, 2-S, 1-P, and 2-P. This problem is a 2-S. So, press **F2**.

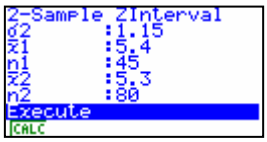
You need to set the calculator up so that it is inputted statistics that is being used, not 'raw data'. As you can see raw data can be used in the **LIST** columns. Press **F2** for **Var** in this instance.

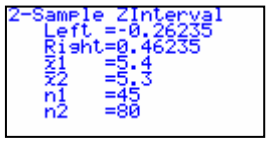
You will see the following screen, enter in the summary statistics and then either press **F1** or **EXE** for the calculation to be completed.

C-level is at the 90% level, enter 0.9









This gives the interval [-0.26235,0.46235], hence these is **NO** statistical difference between the two samples as 0 is in the interval.