Confidence Intervals 1-P type.

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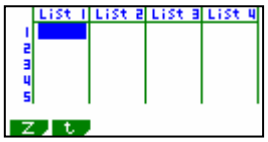
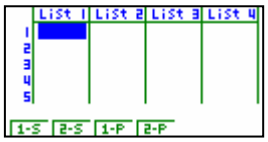
[N.B. This worksheet is for the CFX9850 GB Plus, FX9750 G Plus and the Algebra 2.0 graphic calculators only.]

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. A sample was taken of worm lengths at different areas of a market garden. Test at the 99% confidence level, to see what the 'true' population proportion is, if 55 out of 100 worms found were greater than 9.3cm in length.

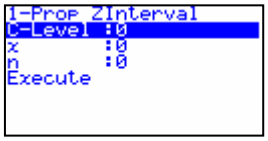
Answer: Enter into the statistics icon. Choose **INTR** press F**4** and **F1** for **Z score.**



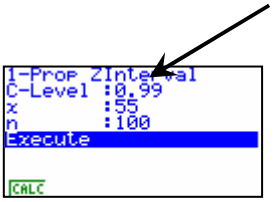


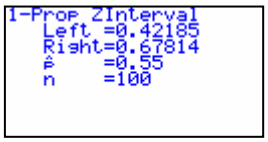
You now have a choice of 4 different options of confidence intervals. 1-S, 2-S, 1-P, and 2-P. This problem is a 1-P. So, press **F3**.

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 0.99

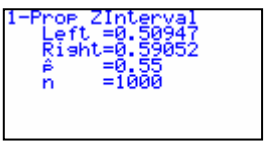




This gives the interval [0.42185,0.67814], hence the true population proportion lies between 42% and 68% (2sig.fig.) of worms with a length greater than 9.3 cm.

[**Remember**: The larger the sample size the more accurate the sampling results. i.e as n gets larger then the population statistic interval gets smaller.]

If n = 1000, then the following results would be calculated:



A much smaller interval.

For further tips, more helpful information and software support visit our website
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