Distributions
Access DISTR (for “Distributions”).

TI’s URL for TI assistance and instructions: http://www.ti.com
Then, enter your calculator model into the “search” box.

Binomial Distribution
- \text{binompdf}(n,p,x) \quad P(X = x)
- \text{binomcdf}(n,p,x) \quad P(X \leq x)
- To see a list of all probabilities for x: 0, 1, \ldots, n, leave off the “x” parameter.

Poisson Distribution
- \text{poissonpdf}(\lambda,x) \quad P(X = x)
- \text{poissoncdf}(\lambda,x) \quad P(X \leq x)

Continuous Distributions (general)
- \(-\infty\) use –1EE99 for left bound
- \(+\infty\) use 1EE99 for right bound

Normal Distribution
- \text{normalpdf}(x,\mu,\sigma) \quad \text{yields probability density function value – only useful to plot the normal curve, in which case “x” is the variable}
- \text{normalcdf}(\text{left bound}, \text{right bound}, \mu,\sigma) \quad P(\text{left bound} < X < \text{right bound})
- \text{normalcdf}(\text{left bound}, \text{right bound}) \quad P(\text{left bound} < Z < \text{right bound}) – standard normal
- \text{invNorm}(p, \mu,\sigma) \quad \text{yields the critical value, k: } P(X < k) = p
- \text{invNorm}(p) \quad \text{yields the critical value, k: } P(Z < k) = p \text{ for the standard normal}

Student-t Distribution
- \text{tpdf}(x,df) \quad \text{yields probability density function value – only useful to plot the student-t curve, in which case “x” is the variable}
- \text{tcdf}(\text{left bound}, \text{right bound}, df) \quad P(\text{left bound} < t < \text{right bound})

Chi-square Distribution
- \chi^2\text{pdf}(x,df) \quad \text{yields probability density function value – only useful to plot the chi^2 curve, in which case “x” is the variable}
- \chi^2\text{cdf}(\text{left bound}, \text{right bound}, df) \quad P(\text{left bound} < \chi^2 < \text{right bound})

F Distribution
- \text{Fpdf}(x,\text{dfnum},\text{dfdenom}) \quad \text{yields probability density function value – only useful to plot the F curve, in which case “x” is the variable}
- \text{Fcdf}(\text{left bound}, \text{right bound},\text{dfnum,dfdenom}) \quad P(\text{left bound} < F < \text{right bound})
**Tests and Confidence Intervals**
Access STAT and TESTS.

For the Confidence Intervals and Hypothesis Tests, you may enter the data into the appropriate lists and press DATA to have the calculator find the sample means and standard deviations. Or, you may enter the sample means and sample standard deviations directly by pressing STAT once in the appropriate tests.

**Confidence Intervals**
- ZInterval: Confidence interval for mean when $\sigma$ is known
- TInterval: Confidence interval for mean when $\sigma$ is unknown; $s$ estimates $\sigma$.
- Z-PropZInt: Confidence interval for proportion

**NOTE:** The confidence levels should be given as percents (ex. enter “95” for a 95% confidence level).

**Hypothesis Tests**
- Z–Test: Hypothesis test for single mean when $\sigma$ is known
- T–Test: Hypothesis test for single mean when $\sigma$ is unknown; $s$ estimates $\sigma$.
- 2–SampZTest: Hypothesis test for 2 independent means when both $\sigma$’s are known
- 2–SampTTest: Hypothesis test for 2 independent means when both $\sigma$’s are unknown
- 1–PropZTest: Hypothesis test for single proportion.
- 2–PropZTest: Hypothesis test for 2 proportions.
- $X^2$–Test: Hypothesis test for independence.

**NOTE:** Input the null hypothesis value in the row below “Inpt.” For a test of a single mean, “$\mu$Ø” represents the null hypothesis. For a test of a single proportion, “pØ” represents the null hypothesis.
Enter the alternate hypothesis on the bottom row.