

# AP Stats: Review of Calculator Commands (TI-84)

What are we looking for?	Keystrokes	Notes
Mean Standard Deviation Sample Size 5 Number Summary	Stat → Edit → Enter data into L <sub>1</sub> Stat → Calc → 1-Var Stats	If you put your data in a list other than L <sub>1</sub> , you must specify the list before you run 1-Var Stats
Area under the z-distribution	2 <sup>nd</sup> → VARS → normalcdf (-99, UB) 2 <sup>nd</sup> → VARS → normalcdf (LB, 99) 2 <sup>nd</sup> → VARS → normalcdf (LB, UB)	LB – Lower Bound UB – Upper Bound LB/UB – use z-scores, leave $\mu = 0$ , $\sigma = 1$
Area under the t-distribution	2 <sup>nd</sup> → VARS → tcdf(LB, UB, df)	
Area in tail of $\chi^2$ -distribution	2 <sup>nd</sup> → VARS → $\chi^2$ -cdf(LB, UB, df)	
z-score corresponding to area in tail	2 <sup>nd</sup> → VARS → invNorm(	Area must be a percentile
t-score corresponding to area in tail	2 <sup>nd</sup> → VARS → invT(area of tail, df)	Area must be a percentile
$\chi^2$ -score corresponding to area in tail	2 <sup>nd</sup> → VARS → $\chi^2$ -cdf	Area must be a percentile
Linear Regression Slope & y-intercept Correlation Coefficient Coefficient of Determination	Stat → Edit → Enter x-values into L <sub>1</sub> Stat → Edit → Enter y-values into L <sub>2</sub> Stat → Calc → LinReg(a+bx)	Remember to turn diagnostics on for $r$ and $r^2$ . If you enter data into lists other than L <sub>1</sub> and L <sub>2</sub> , you must specify
Turn Diagnostics ON	2 <sup>nd</sup> → 0 (catalog) → DiagnosticOn	Use the alpha keys for easier navigation of the catalog
Graph Scatterplot and Regression Line	x (independent) variable in L <sub>1</sub> y (dependent) variable in L <sub>2</sub> LinReg(a+bx) Under StatPlot, select scatterplot Y= → Vars → EQ → RegEQ → Zoom #9	Make sure StatPlot is turned on
Graph Residual Plots	x (independent) variable in L <sub>1</sub> y (dependent) variable in L <sub>2</sub> Stat → Calc → LinReg(a+bx) Highlight L <sub>3</sub> → 2 <sup>nd</sup> → Stat → RESID Under StatPlot, select L <sub>1</sub> and L <sub>3</sub> (or 2 <sup>nd</sup> → Stat → RESID instead of L <sub>3</sub> )	If graphing by hand, it is much easier to look at L <sub>1</sub> and L <sub>3</sub> to get ordered pairs
Normal Probability Plot	StatPlot → select the last graph	If plot is linear, data is approximately normal
Probability – Binomial Distribution	2 <sup>nd</sup> → Vars → binompdf(n, p, x) 2 <sup>nd</sup> → Vars → binomcdf (n, p, x)	When you use cdf, you get the sum of the probabilities up to & including x. If you want to find the probability of something greater than x, use 1 – binomcdf
Probability – Geometric Distribution	2 <sup>nd</sup> → Vars → geometpdf (p, n) 2 <sup>nd</sup> → Vars → geometcdf (p, n)	Use cdf to find the sum of the probabilities

1-Proportion Confidence Interval	Stat → Tests → 1-PropZInt	Go to pg. 23-24 for conditions
2-Proportion Confidence Interval	Stat → Tests → 2-PropZInt	Go to pg. 23-24 for conditions
1-Proportion Significance Test	Stat → Tests → 1-PropZTest	Go to pg. 23-24 for conditions
2-Proportion Significance Test	Stat → Tests → 2-PropZTest	Go to pg. 23-24 for conditions
Confidence Interval for Means	Stat → Tests → TInterval	Go to pg. 23-24 for conditions
T-Test for Means	Stat → Tests → T-Test	Go to pg. 23-24 for conditions
Chi-Square – Goodness of Fit	Stat → Tests → $\chi^2$ GOF-Test	Go to pg. 23-24 for conditions
Chi-Square – Homogeneity	Stat → Tests → $\chi^2$ -Test	Go to pg. 23-24 for conditions
Chi-Square – Independence	Stat → Tests → $\chi^2$ -Test	Go to pg. 23-24 for conditions
Confidence Intervals for Regression	Independent: L1 Dependent: L2 Stat → Tests → LinRegTInt	Go to pg. 23-24 for conditions
Tests for Regression	Stat → Tests → LinRegTTest	Go to pg. 23-24 for conditions