

Statistics 2^{nd} [STAT][EXIT STAT] [DATA] [STATVAR]

1-VAR analyzes statistical data from 1 data set with 1 measured variable, x . 2-VAR stats analyzes paired data from 2 data sets with 2 measured variables— x , the independent variable, and y , the dependent variable. You can enter up to 42 data sets.

To define statistical data points:

1. Press 2^{nd} [STAT]. Select 1-VAR or 2-VAR and press ENTER . The STAT indicator displays.
2. Press [DATA].
3. Enter a value for X_1 .
4. Press \odot .
 - In 1-VAR stat mode, enter the frequency of occurrence (FRQ) of the data point. FRQ default=1. If FRQ=0, the data point is ignored.
 - In 2-VAR stat mode, enter the value for Y_1 and press ENTER .
5. Repeat steps 3 and 4 until all data points are entered. You must press ENTER or \odot to save the last data point or FRQ value entered. If you add or delete data points, the TI-30X II automatically reorders the list.
6. When all points and frequencies are entered:
 - Press [STATVAR] to display the menu of variables (see table for definitions) and their current values, or
 - Press [DATA] to return to the blank STAT screen. You can do calculations with data variables (\bar{x} , \bar{y} , etc.). Select a variable from the [STATVAR] menu and then press ENTER to evaluate the calculation.
7. When finished:
 - Press 2^{nd} [STAT] and select CLRDATA to clear all data points without exiting STAT mode, or
 - Press 2^{nd} [EXIT STAT] ENTER to clear all data points, variable and FRQ values, and to exit STAT mode (STAT indicator turns off).

Variables	Definition
n	Number of x or (x,y) data points.
\bar{x} or \bar{y}	Mean of all x or y values.
S_x or S_y	Sample standard deviation of x or y .
σ_x or σ_y	Population standard deviation of x or y .
Σx or Σy	Sum of all x or y values.
Σx^2 or Σy^2	Sum of all x^2 or y^2 values.
Σxy	Sum of $(x \cdot y)$ for all xy pairs.
a	Linear regression slope.
b	Linear regression y -intercept.
r	Correlation coefficient.
x' (2-VAR)	Uses a and b to calculate predicted x value when you input a y value.
y' (2-VAR)	Uses a and b to calculate predicted y value when you input an x value.