These instructions will help you
• Enter data
• Plot data points in a scatter plot
• Fit a sinusoidal function to those data and plot it to see how well it fits.

1. Preparing the STAT editor:
First steps: If you are plotting points for the first time or you haven’t used the Statistics editor for a while, start here.

Turning ON the STAT PLOT:
Go to the STAT PLOT menu by pressing 2nd \textbf{Y=} and then press \textbf{ENTER} with the cursor on 1:Plot 1

Turn on the STAT PLOT by pressing \textbf{ENTER} with the cursor on ON and highlight the Type and Mark as shown

\begin{align*}
\text{(1)} & \quad \text{(2)} \\
\text{Note the Xlist is L1 and the Ylist is L2}
\end{align*}

Clearing the STAT editor:
If there are data stored in the lists L1 and L2, you will want to clear the lists.

To clear the statistics editor press the \textbf{STAT} button and then \textbf{4} (ClrList)

Now type in 2nd 1 to get L1, then type a comma, and follow it with 2nd 2 to get L2 (etc.)

\begin{align*}
\text{(1)} & \quad \text{(2)} \quad \text{(3)}
\end{align*}

You can also clear individual lists by arrowing up to the top of the list (where the name is) pressing \textbf{Clear} and then pressing \textbf{Enter}.

2. Plotting Data
Begin by making sure that STAT PLOT 1 is ON (See above)

Example: Enter the table below in the statistics editor:

\begin{center}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline
\textbf{x} & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 \\
\hline
\textbf{y} & 23.11 & 14.40 & 37.35 & 50.68 & 30.41 & 13.00 & 29.76 & 50.55 & 37.97 & 14.65 \\
\hline
\end{tabular}
\end{center}

To put data into the statistics editor: Press the \textbf{STAT} button and then \textbf{ENTER} with the cursor on EDIT

Begin entering data by putting \textit{x} values in L1 and \textit{y} values in L2

Go to the \textbf{ZOOM} menu and press 9 (Zoom Stat) and the graph will follow.

Over:
3. Generating a Sinusoidal curve to fit the data

Press the STAT button (1)

Use the Right Arrow to move over to CALC, then Down Arrow to C:SinReg and press ENTER (2 & 3)

In order to store the results in the y= editor, do the following:
With the cursor just to the right of the SinReg notice (see step (3) above),
Press the VARS button (4)

Right Arrow over to Y-VARS and press ENTER (5)
With the cursor on Y1 press ENTER again (6)
To execute the regression routine Press ENTER (7)
The regression function will be displayed in the form $y = a \sin(bx + c) + d$ ** (8)

To see that your equation matches the data, press the GRAPH button (9)

**The equation is stored in the Y= editor. Press Y= in order to see the function. (10)

If you try to graph something later and you get the Error message below (1), you need to turn off the STAT PLOTS. In the Y= editor (2), go to the very top where Plot1 is highlighted (2) and press enter to turn it off (3).