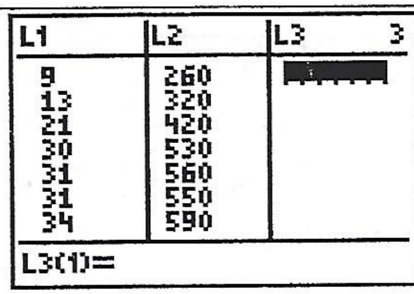
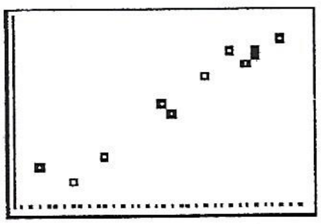
Line of best fit

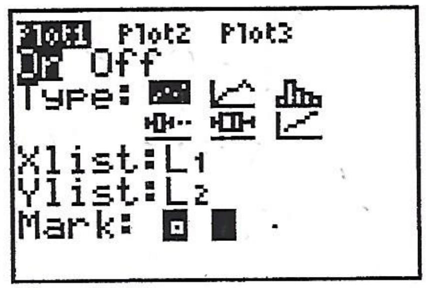
Can we predict the number of total calories based upon the total fat grams?

1. Enter the data in the calculator lists. Place the data in L_1 and L_2.
STAT, #1Edit, type values into the lists



2. Prepare a scatter plot of the data.
Set up for the scatterplot.
2nd StatPlot - choices shown at right.
Choose ZOOM #9 ZoomStat. Graph shown below.

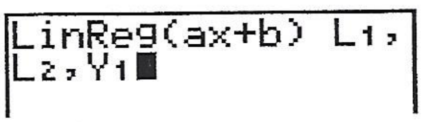




CALC Steps →

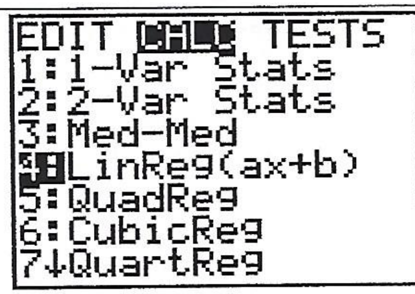
3. Have the calculator determine the line of best fit.
STAT → CALC #4 LinReg(ax+b)

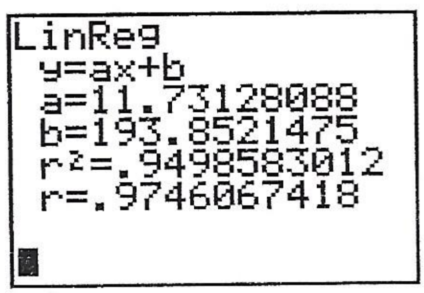
Include the parameters L_1, L_2, Y_1.
(Y_1 comes from VARS → YVARS, #Function, Y_1)



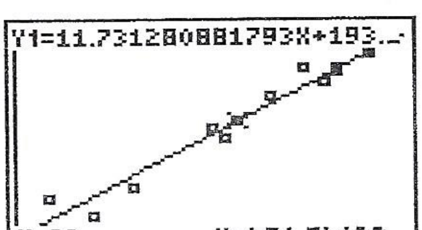
You now have the values of a and b needed to write the equation of the line of best fit. See values at the right.

$y = 11.73128088x + 193.8521475$

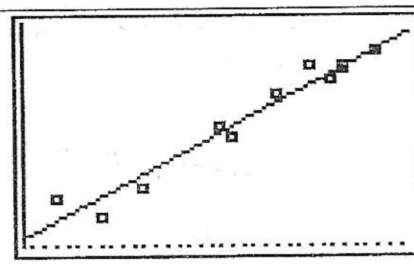




4. Graph the line of best fit.
Simply hit GRAPH. To get a predicted value **within the window**, hit TRACE, up arrow, and type the desired value.



make sure you move off y=



Question: Predict the total calories based upon 22 grams of fat.
ANS: 451.940 calories

Input result or graph

Y= | → | Then VARS / STATS → EQ | 1: RegEQ | ZOOM | 9: ZoomStat