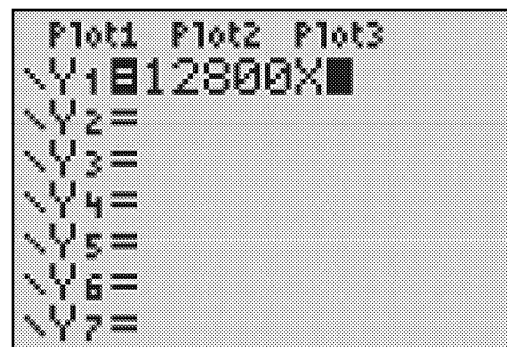# Method 3: Use a Graphing Calculator

Clear all the calculator's lists. You will be modelling the fuel consumption using the equation $f = 12\ 800t$.

The calculator uses y and x only and starts all equations as $y = $.
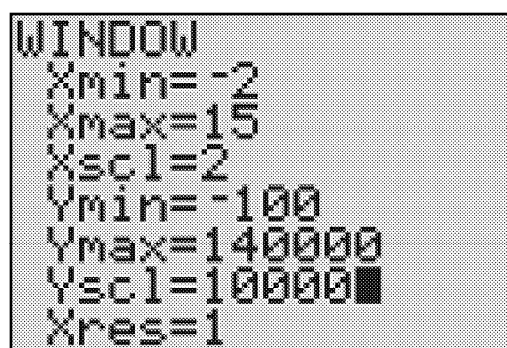To enter the equation:
• Select Y=.
• Enter the equation **y = 12800x**.

To adjust the window settings:
• Select WINDOW.
  Enter the following:
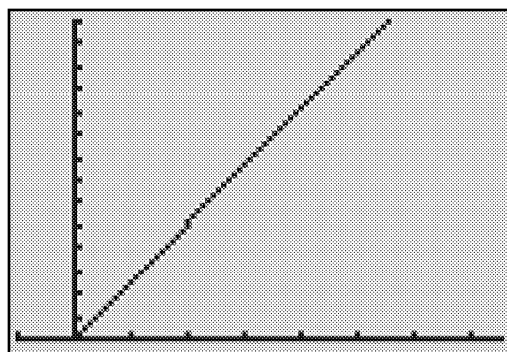
x min	−2	y min	−100
x max	15	y max	140 000
x scale	2	y scale	10 000

To display the graph:
• Press GRAPH.

To display the table of values:
• Press 2nd GRAPH.
  Scrolling in the table of values
  can be used to find the fuel consumption
  for a given time.

For part b), 140 800 L of fuel are
used in 11 h.

Alternate method:
To enter specific *x*-values:
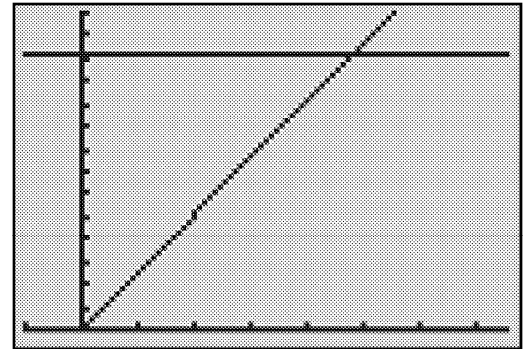• Press [2nd] [TRACE] and select **1: Value**.
• Enter 11 for *x*. Press [ENTER].

The bottom of the screen will display the *y*-value.
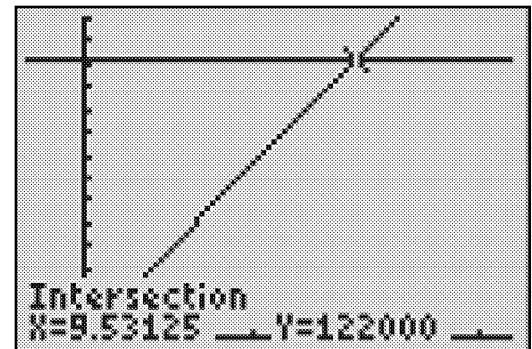There are 140 800 L of fuel used in 11 h.

To enter specific *y*-values:
• Press [Y=].
•Enter the equation **y = 122 000** in **Y₂**.
• Press [GRAPH].

To find the amount of time it will take to
consume 122 000 L of fuel, you will need to
find the intersection point of the two equations:
• Press [2nd] [TRACE] and select **5: Intersect**.
• Using the arrows, move the cursor to the
  point of intersection of the two lines.
• Press [ENTER] to confirm that you are on
  the first curve of $y = 12\,800t$.
• Press [ENTER] to confirm that you are on
  the second curve of $y = 122\,000$.
• Press [ENTER] to confirm that you are
  accepting the guess.

For part c), the fuel will last for 9.5 h.