

STEP 2 Enter data

Enter the data from Step 1 into your calculator in the form of lists by pressing **STAT** and selecting Edit. Enter the number of caps in L1 and the number of T-shirts in L2.

STEP 3 Find the profit

You can have your calculator table display the profit P in L3. To do this, first rewrite your profit function from Exercise 3 of the Explore 1 section below by substituting L3 for P , L1 for c , and L2 for t .

$$L3 = \underline{\hspace{2cm}}$$

Using the calculator's arrow keys, highlight L3 on the screen. Then key in the expression above (press **2ND** 1 to enter "L1" and **2ND** 2 to enter "L2"), and press **Enter**. The calculator will display the results in L3.

STEP 4 Record results

Record the resulting profits displayed in L3 in your table from Step 3.

DRAW CONCLUSIONS Use your observations to complete these exercises

6. For which combination of caps and T-shirts did you find the maximum profit? What was the maximum profit?
7. For which combination of caps and T-shirts did you find the minimum profit? What was the minimum profit?
8. What is distinctive about where both the minimum and maximum values are located on the graph? In other words, are these values located somewhere special with respect to the shaded region?