

How to Do Page 174 #5a) Using TI-83/84

1. Enter the equation in the Y= screen.

- Press $\boxed{Y=}$.
- Press $3 \boxed{x,T,\theta,n} \boxed{x^2} \boxed{+} 7 \boxed{x,T,\theta,n} \boxed{-} 6 \boxed{ENTER}$

as shown in Figure 1.



Figure 1

2. Enter a window and graph the function.

- Press \boxed{WINDOW} and enter the values. A possible window for this function is shown in Figure 2.
- Press \boxed{GRAPH} . You will see Figure 3.

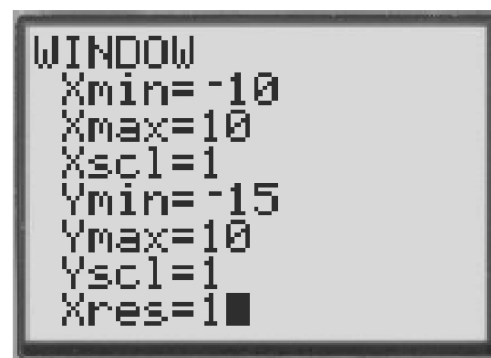


Figure 2

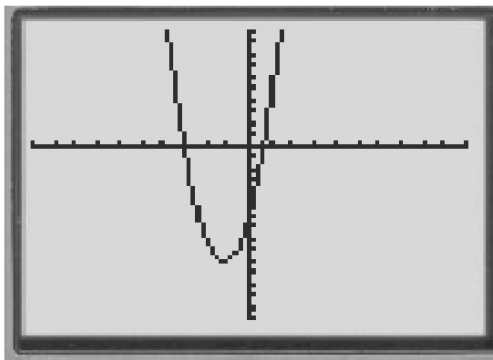


Figure 3



3. Find the y-intercept.

- Press **TRACE**.
- To enter $x = 0$, press **0** **ENTER**. See Figure 4.
- Find the minimum, press **2nd** **TRACE**.
Choose 3: minimum. See Figure 5.



Figure 5

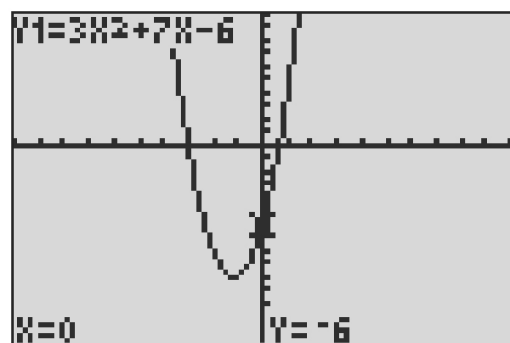


Figure 4

- To enter a left boundary, move the cursor anywhere to the left of the minimum and press **ENTER**.
- To enter a right boundary, move the cursor anywhere to the right of the minimum and press **ENTER**.
- To enter a guess, use the same value you used for the right boundary and press **ENTER**. The minimum will be displayed as in Figure 6.

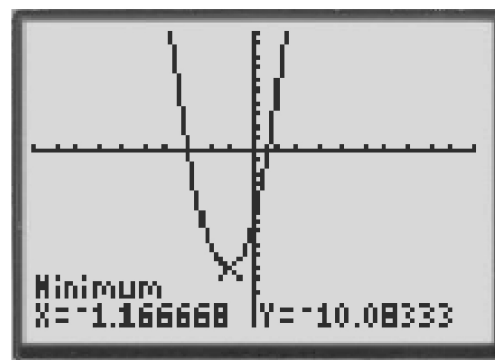


Figure 6

4. Find the x-intercepts.

- Press **2nd** **TRACE**.
- Choose 2: zero **ENTER**. See Figure 7.
- Since there are two x-intercepts, for the following steps it is best to choose your left and right boundary so that it is an interval containing only one x-intercept at a time.

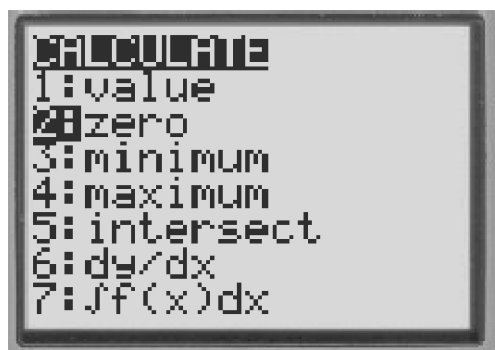


Figure 7



Name: _____

Date: _____

TM 3-7
(continued)

- To enter a left boundary, move the cursor to the left of one of the x -intercepts and press **ENTER**.
- To enter a right boundary, move the cursor to the right of the same x -intercept and press **ENTER**.
- To enter a guess, use the same value you used for the right boundary and press **ENTER**.
- Repeat the process for the other x -intercept.
You will see Figures 8 and 9.

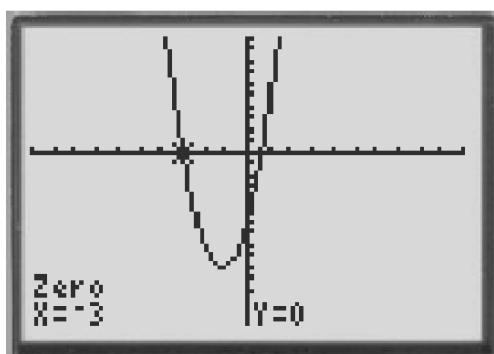


Figure 8

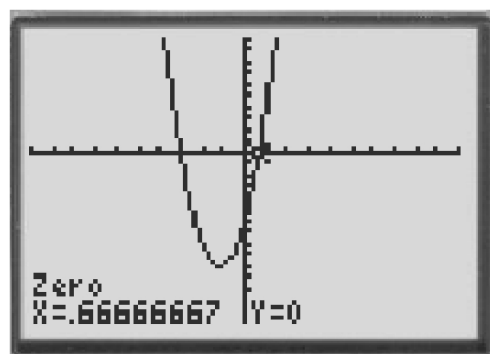


Figure 9

