

How to Do Page 428 Example 2 Using TI-Nspire™ With Touchpad

Use TI-Nspire™ with Touchpad to determine and verify the solution to the following system of linear-quadratic equations:

$$4x - y + 3 = 0$$

$$2x^2 + 8x - y + 3 = 0$$

- Create a new document.
 - Press the home key and choose 1: New Document.
 - Select 2: Add Graphs.
- Enter each equation to be graphed. The cursor should be in the entry line at the bottom of the screen.
 - Press $4X + 3$ enter for the first equation. See Figure 1 below. Note: if the entry line is hidden, press tab .
 - Press $2x^2 + 8x + 3$ enter for the second equation. See Figure 2.

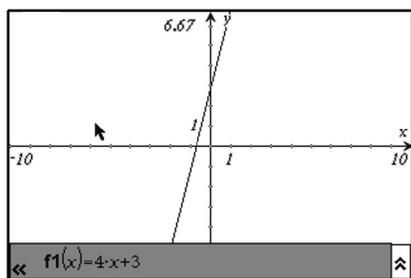


Figure 1

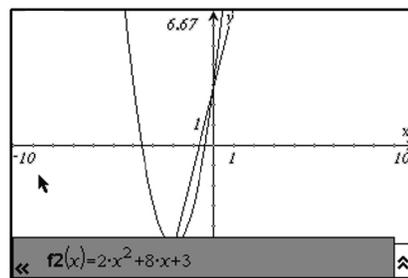


Figure 2

- If you wish to change the window, press menu and then choose 4: Window. Select 1: Window Settings as shown in Figure 3. A possible window is shown in Figure 4. Use tab to move between the rows.

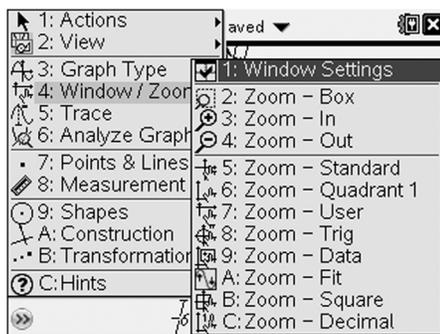


Figure 3

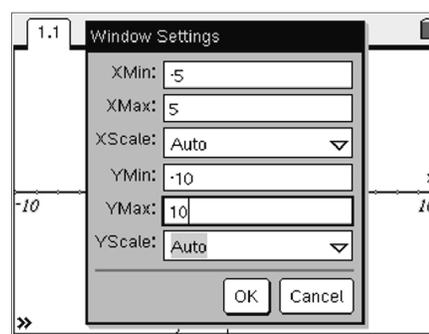
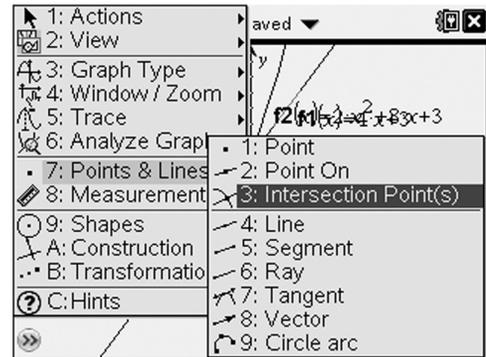


Figure 4

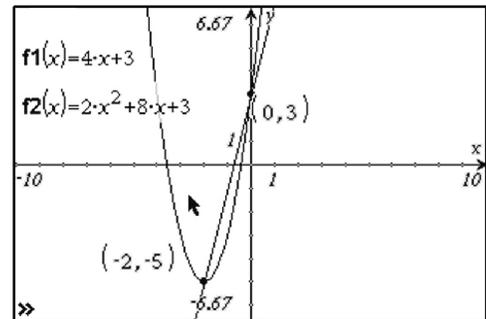


4. Calculate the intersection points.

- Press **[menu]** and then choose 7: Points & Lines.
- Select 3: Intersection Point(s) as shown in Figure 5.

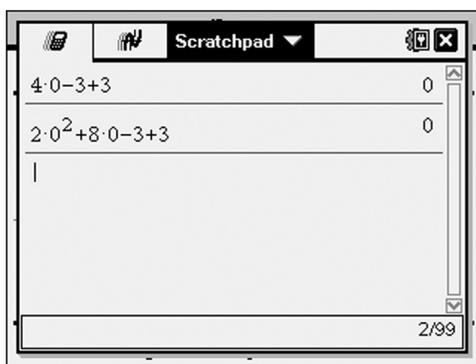
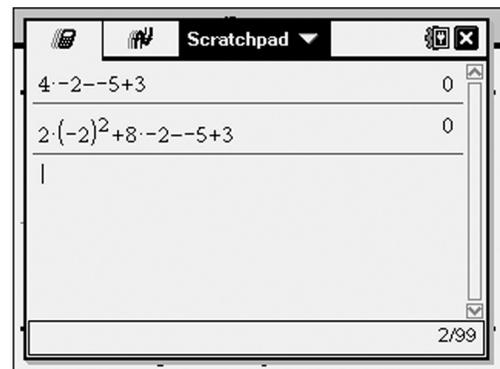

Figure 5

- Using the arrows on the NavPad, move the cursor to one of the functions and press **[enter]**.
- Then, move the cursor to the other function and press **[enter]**. You will see Figure 6.


Figure 6
5. Verify the solution by pressing the home key and selecting A: Calculate.

- Press **4** **[x]** **0** **[=]** **3** **[+]** **3** **[enter]**.
 - Press **2** **[x]** **0** **[x²]** **[+]** **8** **[x]** **0** **[=]** **3** **[+]** **3** **[enter]**.
- You will see Figure 7.

- Press **4** **[x]** **-2** **[=]** **-5** **[+]** **3** **[enter]**.
 - Press **2** **[x]** **(** **-2** **)** **[x²]** **[+]** **8** **[x]** **-2** **[=]** **-5** **[+]** **3** **[enter]**.
- You will see Figure 8.


Figure 7

Figure 8
