

## How to Do Page 226 Example 2a) Using TI-Nspire™ With Touchpad

Use TI-Nspire™ with Touchpad to graph  $y = 3 \sin x$ ,  $y = 0.5 \sin x$ , and  $y = -2 \sin x$  for  $0 \leq x \leq 2\pi$ .

- Set the calculator to radian mode.
  - Press the home key and choose 5: Settings & Status. See Figure 1.

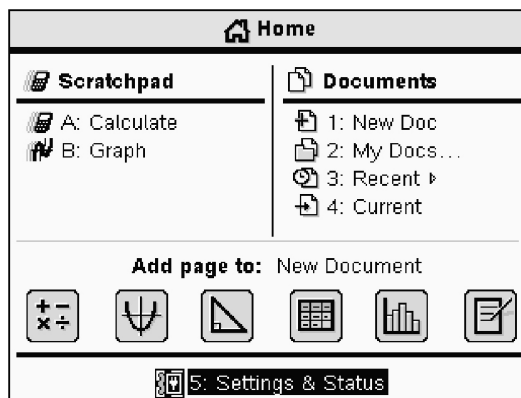


Figure 1

- Choose 2: Settings and then choose 1: General. See Figures 2 and 3 below.

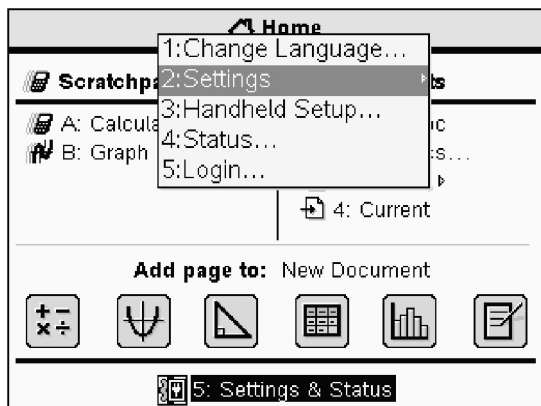


Figure 2

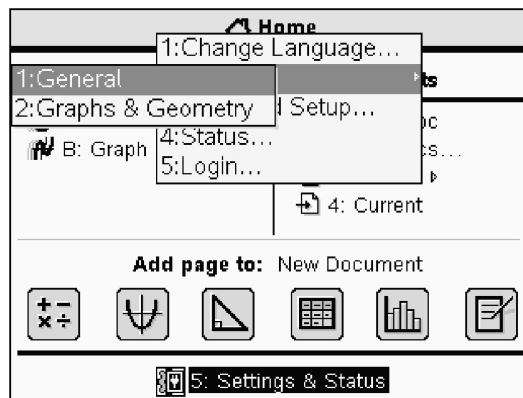


Figure 3

- Ensure that “Angle” is set to radians. See Figure 4. If the calculator is in radian mode then press **[enter]**. Otherwise, use the navigation pad or **[tab]** to move the cursor to “Angle” and then press the centre of the navigation pad to open a menu that will allow you to highlight radians and then press **[enter]**.

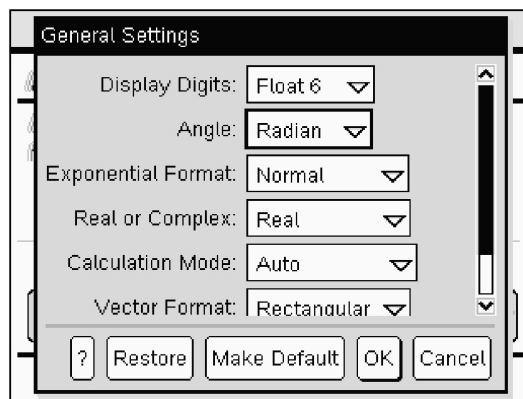


Figure 4



2. Create a new document and graph.
  - Press the home key and choose 1: New Document. See Figure 5 below.
  - Select 2: Add Graphs. See Figure 6.

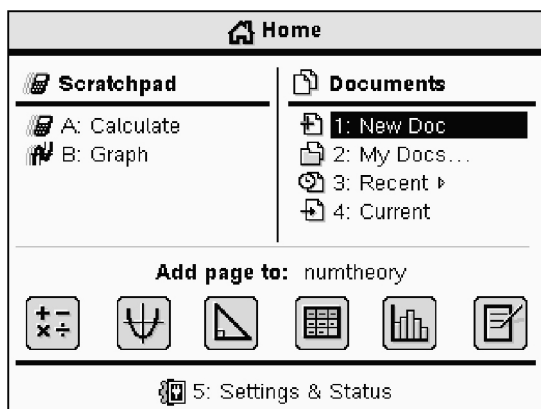


Figure 5

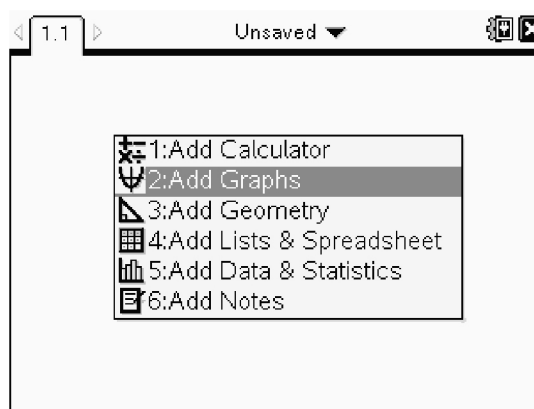


Figure 6

3. You can change the window, if you wish.
  - Press **[menu]** and then choose 4: Window and then 1: Window Settings as shown in Figure 7.

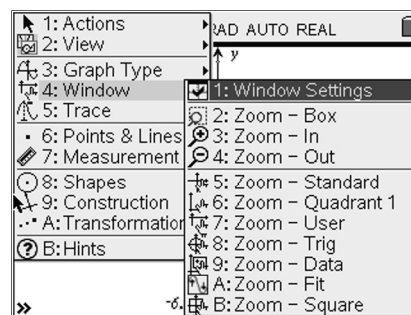


Figure 7

- Enter a possible window, such as the one in Figure 8.  
 (Note: use **[tab]** to move between the rows.)

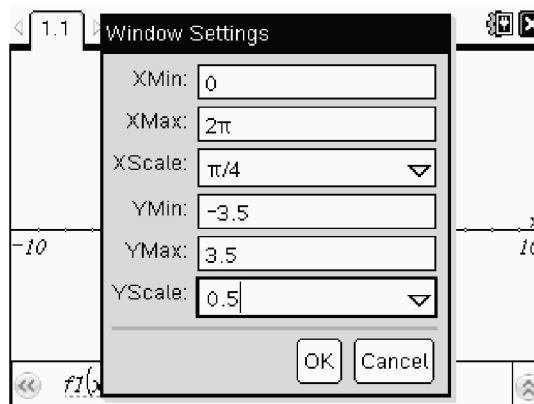


Figure 8



4. Graph the function  $y = 3 \sin x$ .

- With the cursor in the entry line at the bottom of the screen, enter **3** **[trig]** and select sin. See Figure 9 below. Then, enter **X** **[)]**.
- Press **[enter]** and you will see Figure 10. (Note: If the entry line is hidden, press **[tab]**.)

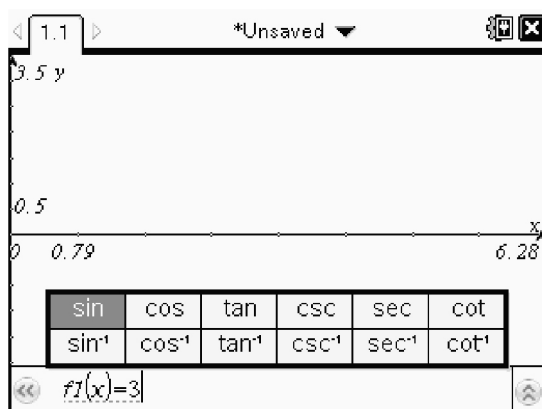


Figure 9

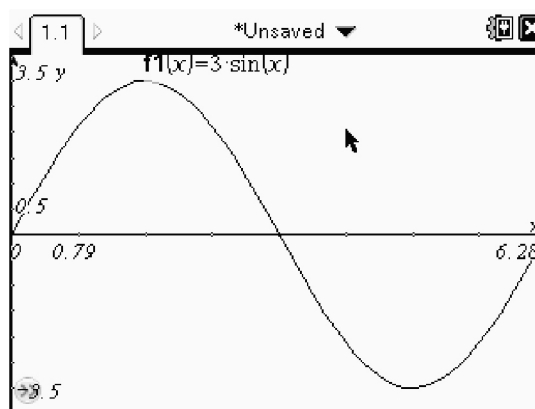


Figure 10

5. Graph the other functions,  $y = 0.5 \sin x$  and  $y = -2 \sin x$ .

- With the cursor in the entry line at the bottom of the screen, enter **0.5** **[trig]**, select sin, enter **X** **[)]** **[enter]**.
- With the cursor in the entry line at the bottom of the screen, enter **(-)** **2** **[trig]**, select sin, enter **X** **[)]** **[enter]**. See Figure 11.

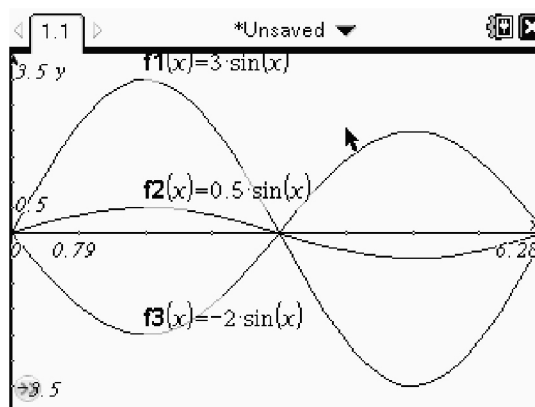


Figure 11

6. You can delete labels, if you wish.

- To remove the label showing an equation, move the cursor to one of the labels with the arrow keys. Then, highlight the label by pressing the centre of the navigation pad. Press **[del]**. See Figure 12.
- Repeat for the other two labels.

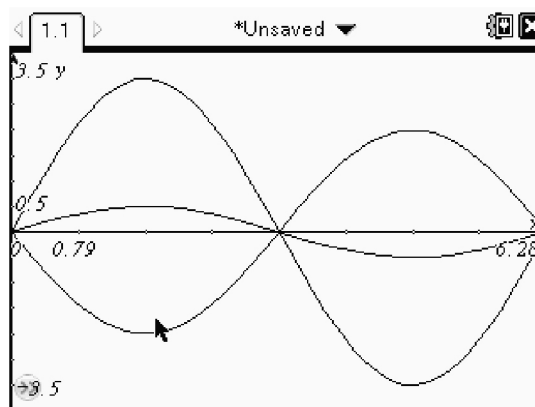
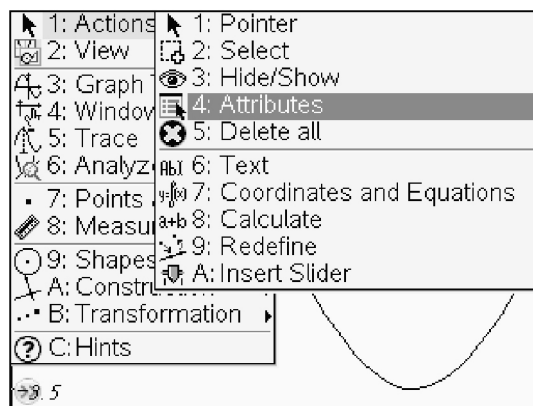


Figure 12



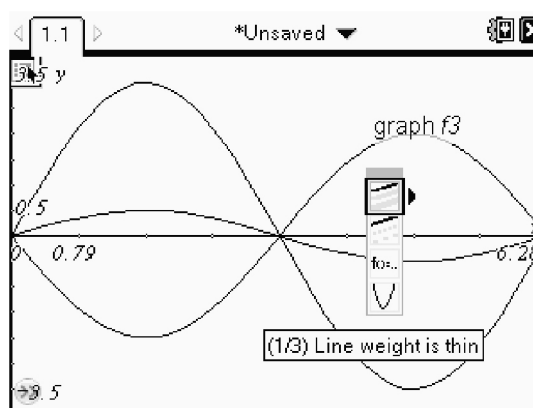
7. You may wish to graph  $y = -2 \sin x$  with a thick line.

- Press **[menu]**. Choose 1: Actions and then select 4: Attributes. See Figure 13.



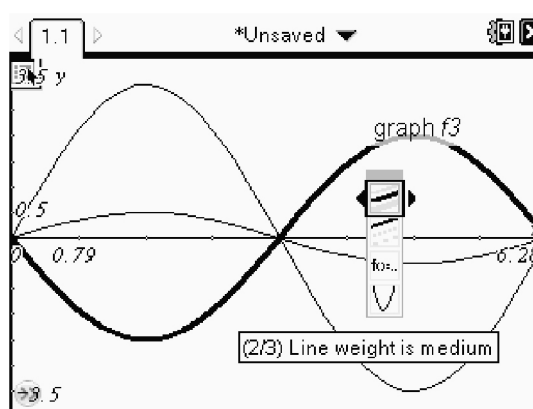
**Figure 13**

- Move the cursor to the curve  $y = -2 \sin x$ . Press **[enter]**. A drop down menu will appear and the top icon will be highlighted. See Figure 14.



**Figure 14**

- Press the right arrow on the navigation pad to change the line to a medium thickness. (Press the right arrow again if you want the line even thicker.) See Figure 15.

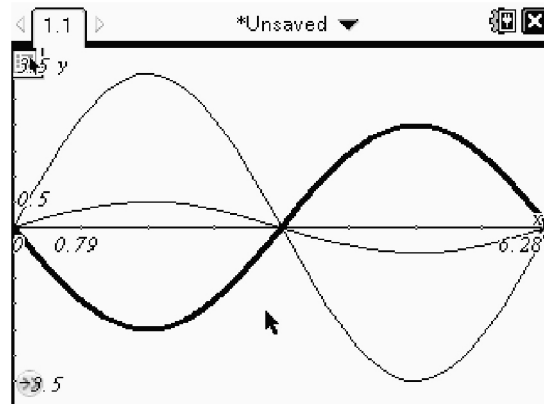


**Figure 15**





- Then, press **enter**. See Figure 16.



**Figure 16**

