## Overview

A slider is a useful calculator tool in action/consequence documents. Sliders can be used to control various parameters, for example, in equations. They can also be used to illustrate transformations and translations of graphs. This document provides detailed steps in order to construct the Slider_template.tns file.

Step 1—Opening a New Document

1. On the TI-Nspire handheld or in the Teacher software, open a new TI-Nspire document.

2. Select Add Graphs.

3. Under the page layout menu, select the option to split the page in half vertically, and then add a Graphs page to the right side.

4. In the left work area, select **MENU > View > Hide Axis**. Position the cursor along the boundary of the two screens. Use the left mouse button to grab and move the page boundary to the left.
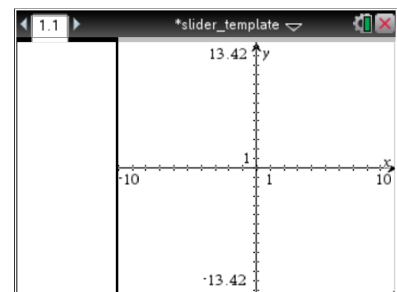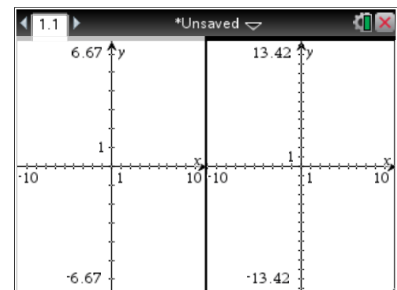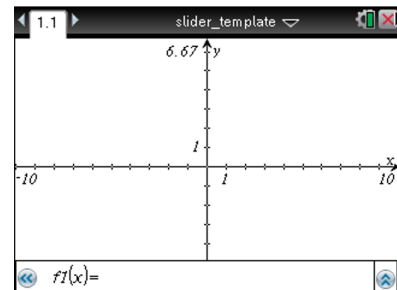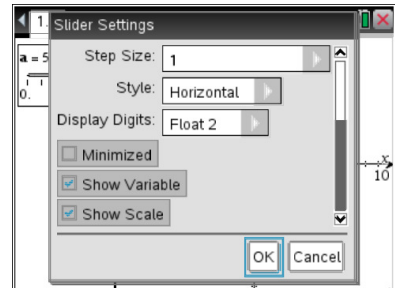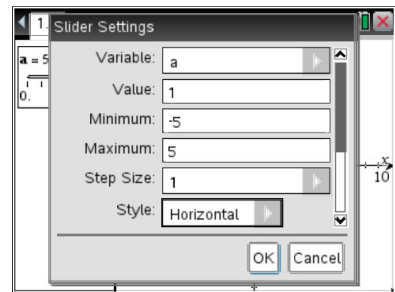
Step 2—Adding a Slider

5. In the left work area, select **MENU > Actions > Insert Slider**. Position the slider near the top left portion of the screen, and name the slider variable a.
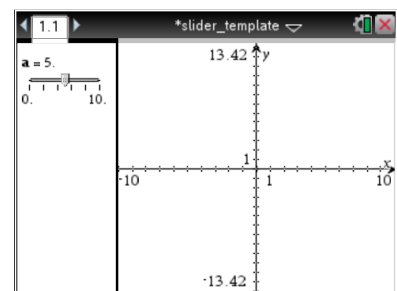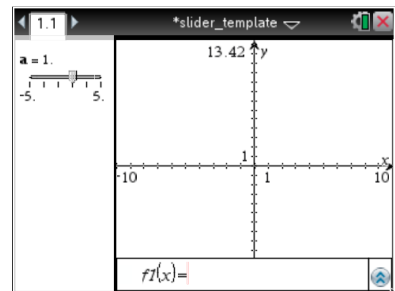
6. Right-click in the slider box, and select Settings. Change the slider settings as indicated in the screens to the right, and click OK.

7. You can now add a function characterized by the parameter a on the entry line of the right screen. For example, $f1(x) = a \cdot x.$ Grab and move the slider on the left screen. The graph of the function $f1$ changes dynamically with the value of a.

Note: To change the slider settings, right-click in the slider box, and select Settings. Change settings as necessary, and click OK to complete the changes. All of the Graphs and Geometry tools can be used in the right screen.

Step 3—Insert New Problems

8. On the **handheld**, select `doc▾` > **Insert > Problem**. Within the computer software, select **Insert > Problem**.

9. Copy Page 1.1, and paste into the new problem as Page 2.1.
   - On the handheld, press `ctrl` `⚏` to view the document pages. Select the page to be copied (1.1). Press `ctrl` `menu` > **Copy**. Select the position for the new (copied) page, and press `ctrl` `menu` > **Paste**.
   - Using the computer software, select Page Sorter from the Documents Toolbox. Right-click on the appropriate page, and select Copy (or use ctrl+C). Select the position for the new (copied) page, right-click, and select Paste (or use ctrl+V).
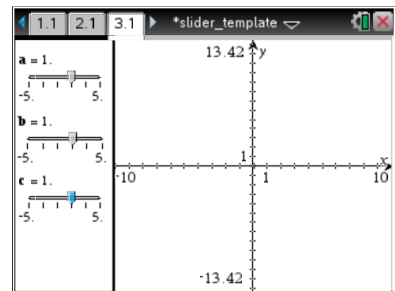
10. In the left work area of Page 2.1, select **MENU > Actions >**
    Insert Slider. Position this second slider below the first, name the
   slider variable $b,$ and use the same settings as in step (6).
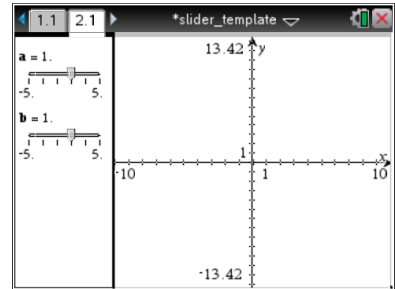
11. Clear the function that was used in Problem 1. You can now add a function characterized by the
    parameters a and b on the entry line of the right screen. For example, $f1(x) = a \cdot x + b.$ Grab and
    move a slider on the left screen. The graph of the function $f1$ changes dynamically with the value of
    the slider.

12. Insert another new problem. Copy Page 2.1, and paste into the new problem as Page 3.1.

13. In the left work area of Page 3.1, select **MENU > Actions >**
    Insert Slider. Position this third slider below the second, name
    the slider variable $c,$ and use the same settings as in step (6).

14. Clear the functions that were used in Problem 2. You can now add a function characterized by the
    parameters a, b, and c on the entry line of the right screen. For example, $f1(x) = a \cdot x^2 + b \cdot x + c.$
    Grab and move a slider on the left screen. The graph of the function $f1$ changes dynamically with
    the value of the slider.

15. Insert another new problem. Copy Page 3.1, and paste into the new problem as Page 4.1.

16. In the left work area of Page 4.1, select **MENU > Actions >**
    Insert Slider. Position this fourth slider below the third, name the
    slider variable $d,$ and use the same settings as in step (6)
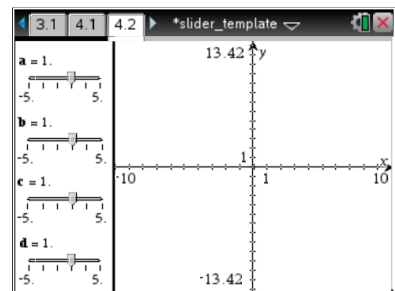
16. You can now add a function characterized by the parameters $a, b, c,$ and d on the entry line of
    the right screen. For example, $f1(x) = a \cdot x^3 + b \cdot x^2 + c \cdot x + d.$ Grab and move a slider on the left
    screen. The graph of the function $f1$ changes dynamically with the value of the slider.

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