

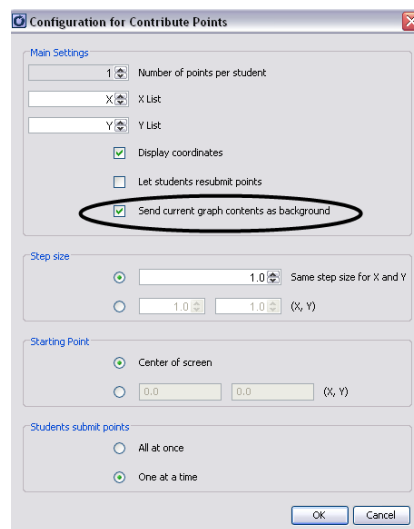
“Gettin’ Linear: Phase 2”

Overview: Designed for beginning Algebra and Pre-Algebra students who are just learning how to “count out” slope on a coordinate plane. Using **TI-Navigator’s Activity Center**, students determine the slope of a line, given two points.

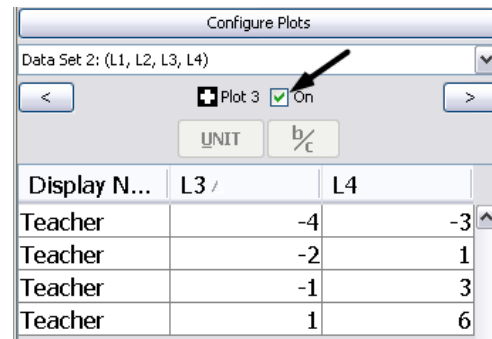
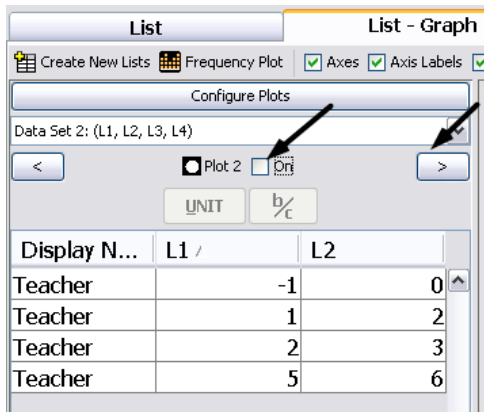
Pre-requisite knowledge: Students should understand how to graph points on the coordinate plane.

Procedures:

1. Launch TI-Navigator and Begin Class. Load the attached Activity Settings file (ActivitySlopePoints.act). [The activity shows a square grid, with the graph of $y=x+1$, and four points marked on the graph of the line].
2. Ask students how they can find the slope of the line. [If they have done the activity “Gettin’ Linear: Phase 1,” they may say they could make a table for the points and figure out the slope from the points].
3. Click **List – Graph** to show the table of values for the points shown. Ask students to contribute more points to the line. Click **Start Activity**. Be sure the configuration settings are as shown:
4. Click **Stop Activity**. With the students, examine the points on the graph and in the table. Discuss any incorrectly placed points and the errors that may have caused students to incorrectly place points.
5. Click the **L1** heading until the x-values are in ascending order. Discuss the change in y-values as it is related to the change in x-values.
6. Then, on the graph, demonstrate how that related to ‘counting out’ the rise between two points and comparing it to the run.
7. Using the projected graph or the graphs on their handheld screens, have students ‘count out’ the rise and run between each pair of points on the graph, put the rise over the run and reduce the fraction. Emphasize that the final fraction is the same, no matter which two points they select.



8. From the **List – Graph** tab, turn **Off** Plot 2, and then click the right arrow to bring up Plot 3, which contains points with a slope of 2. Turn **On** Plot 3. You may wish to delete the



line from the previous plot. Repeat the activity above with the new points.

9. **Drawing Conclusions:** Ask students to summarize what they have discovered about the slope between two points on a line. This could be done as a quick poll with text entry.

Next step: “Gettin’ Linear: Phase 3” in which students determine the equation of a line, given two points.