## Writing Equations of Lines

## Objectives:

Using the GUESS THE LINE aplet, the student will write the equation of a line in slope-intercept form when given two points.

## Functionality:

When the student presses START, the GUESS THE LINE NOTE will be displayed.

The student should then press VIEWS to access the options of this aplet.

New Line will randomly plot two ordered pairs. The student should write the equation of the line in slope-intercept form that passes through these points. Pressing any key will bring back the views menu.

Guess Line will prompt the student for the slope and the $y$ intercept of the line that contains these points.

If the student enters the correct slope and $y$-intercept, the calculator returns a message that says GREAT JOB!

If the student enters an incorrect piece of information, the calculator returns a message that specifying the correct information.

After the message box, the original points and the student's line will be displayed. The student may then guess again. Pressing VIEWS will bring back the menu.


## Additional Exploration:

Use the Build Your Own feature in the numeric setup of the Function aplet to have students create a table of $x$ and $y$ values for a given line. An example would be:

Complete the table for $y=\frac{1}{2} x-\frac{3}{4}$.

| $x$ | $y$ |
| :---: | :---: |
| -5 |  |
| -2 |  |
| -1 |  |
| 2 |  |
| 7 |  |
| 8 |  |



Programs associated with this aplet:
.LI.NL, .LI.GL, .LI.ST, .LI.SV

