

Guess My Coefficients

ID: 8205

Time required

30 minutes

Activity Overview

In this activity students will use the Guess My Coefficients application to review the equations of linear functions.

Topic: Functions & Relations

- *Interpret a line graph relating two variables in terms of points of interest, slope, and asymptotic behavior.*
- *Trace along the graph of a linear function or relation to find the coordinates of some points on the graph.*

Teacher Preparation

This activity is appropriate for students in Algebra 1 or PreAlgebra.

- *Prerequisites are: an introduction to functions (including the terms domain and range), function notation (“y=” and “f(x)=”), and some experience graphing linear functions using slope and y-intercept.*
- *This activity is designed to have students explore **individually and in pairs**. However, an alternate approach would be to use the activity in a whole-class format.*
- *This activity uses the Guess My Coefficients Application. Make sure that the application is loaded onto the calculators before beginning the activity. To download the app, go to education.ti.com and select the Downloads & Activities tab.*
- ***To download the student worksheet, go to education.ti.com/exchange and enter “8205” in the keyword search box.***

Associated Materials

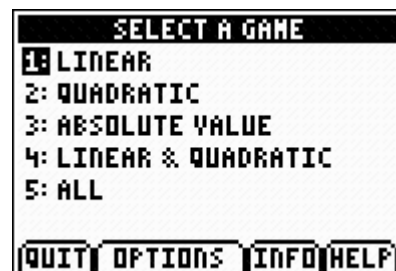
- *GuessMyCoefficients_Student.doc*

Suggested Related Activities

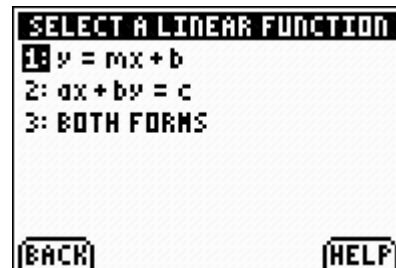
To download any activity listed, go to education.ti.com/exchange and enter the number in the keyword search box.

- *Exploring Linear Equations (TI-84 Plus family) — 8189*
- *Writing linear equations to form shapes (TI-84 Plus family) — 7072*

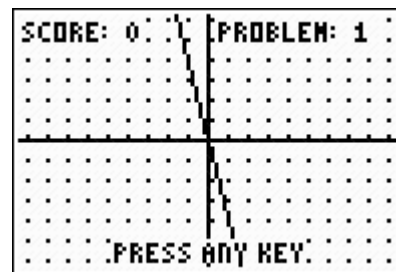
Students open the Guess My Coefficients App (**GuesCoef**) and select the LINEAR game.



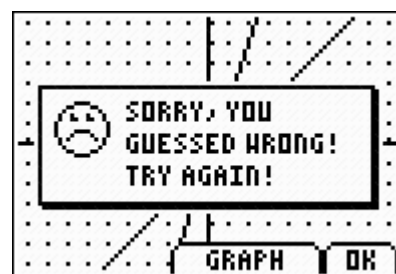
Have students select the form of linear function for the problems in the game. You may want to as a class, play two sets of games; the first game using **1: $y = mx + b$** and the second game using **2: $ax + by = c$** .



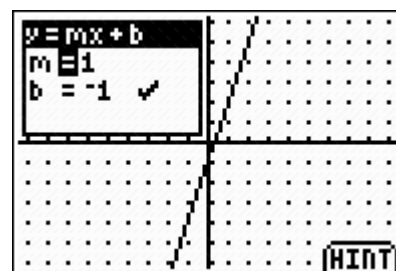
A counter of the score and problem number appear at the top. Students are to press any key to begin. Using the graph they are to determine the slope, m , and the y -intercept, b . To guess the values, press **(ENTER)** and an entry box will appear. Type the value for m , press the down arrow key to move to b , and then type the value for b .



When students press **(ENTER)**, the graph will be drawn using the values of m and b entered. If the graph is correct or incorrect, a message will display.



If an incorrect answer is given, view the graph again without the entry box by pressing a key under "GRAPH." Or press **(GRAPH)** for "OK." A check mark will appear beside any correct information.



For an opportunity to trace the graph, press **[GRAPH]** to access the "HINT" option. A cursor will appear on one point of the graph. Use the arrows to trace the graph.

Press **[GRAPH]** to move to the next problem.

The score and problem number appear with a new graph. Press any key to examine the graph. To guess the values, press **[ENTER]**

