



# Two Variable Linear Equations

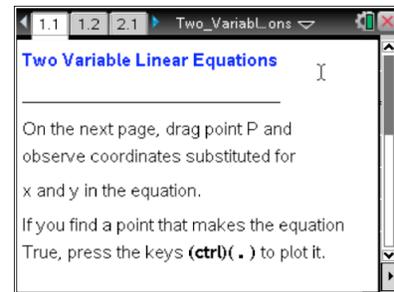
## Student Activity

Name \_\_\_\_\_

Class \_\_\_\_\_

Open the TI-Nspire document *Two Variable Linear Equations.tns*.

An ordered pair  $(x, y)$  can be thought of as a pair of numbers that can be substituted into an equation involving  $x$  and  $y$ . Those same two numbers can be thought of as the coordinates  $(x, y)$  of a point in the plane. This activity relates those two ideas to each other to give you a visual way of thinking about a point as the solution to a linear equation in two variables.



Move to page 1.2.

Press **ctrl** **▶** and **ctrl** **◀** to navigate through the lesson.

- Move point  $P$ , and describe how the coordinates relate to the equation shown in the screen.
  - Move point  $P$  until you find a point that makes the equation true. Press **ctrl** **.** to mark this point. What are its coordinates?
- If  $x = 0$ , what value of  $y$  is needed to make the equation true?
  - Move point  $P$  so that the first coordinate is 0, and the equation is true. Press **ctrl** **.** to mark this point. If  $y = 0$ , what value of  $x$  is needed to make the equation true?

Move point  $P$  so that the second coordinate is 0, and the equation is true. Press **ctrl** **.** to mark this point.

- Move point  $P$  to a new location where the equation is true. Press **ctrl** **.** to mark this point. Mark at least one more point that makes the equation true.
  - How are the points you marked related to each other?

