

# Treasure Hunt

5605

## Introduction

In this activity, students follow a set of directions to plot points in the coordinate plane.

## Grades 9-12

### NCTM Algebra Standards

- Understand patterns, relations, and functions
- Understand and perform transformations such as arithmetically combining, composing, and inverting commonly used functions, using technology to perform such operations on more-complicated symbolic expressions

## Files/Materials Needed

*Treasure Hunt.act*

1

- Launch TI-Navigator™ on the computer and start the session.
- Have each student log into NavNet on their calculator.

2

- Load the activity settings file *Treasure Hunt.act*.
- Note: In this activity, do not display the graph showing the movement of the students' cursor or the plotting until everyone is finished.
- Start the activity and press the **List-Graph** tab.
- Instruct students to move their cursor to the point (1, 5) and press MARK. This is the starting ordered pair.
- Instruct students to move their cursor using the following directions:  
*The domain (x-value) is increased by 2 with no change in the range (y-value).*  
Tell students to press MARK after each move and continue this movement a total of four times.
- Stop the activity and discuss the graphs. Discuss any "stray" points with the class giving possible reasoning for incorrect plotting.

3

Repeat with as many different directions as time permits. Some examples to try include:

- *There is no change in the domain (x-value) but the range (y-value) is decreased by 2.*
- *Increase both the domain and range values by 1.*
- *Decrease both the domain and range values by 2.*
- *Decrease the domain by 1 and increase the range by 1.*