Be the Point

5599

Introduction

This activity introduces students to Activity Center in a fun way and allows them to model and interpret relationships between points in the coordinate plane.

Grades 6-8

NCTM Algebra Standards

- Understand patterns, relations, and functions
- Represent, analyze, and generalize a variety of patterns with tables, graphs, words, and, when possible, symbolic rules

Files/Materials Needed

Catch Me If You Can.act, Be The Point.edc

PART 1 INTRODUCTION TO ACTIVITY CENTER

1

a. Launch TI-Navigator™ on the computer and start the session.

b. Have each student log into NavNet on their calculator.

2

a. Load the activity settings file ***Catch Me If You Can. act***.

b. Start the activity and use your calculator to log in as a teacher as well. Your cursor will be green; the students' cursors will be white.

c. Move your cursor around the screen and let the students chase you around. HAVE FUN!

d. After a short while, stop your cursor and let all of the students converge on that point.

e. Have students identify the coordinates of this location. Use this opportunity to introduce students to the variables *x* and *y* as they relate to graphs.

PART 2 PATTERNS IN THE PLANE

3

a. Pause the activity and hide the screen either by minimizing it or covering the projector lens.

b. Resume the activity and instruct the students to move their cursors to where both coordinates are positive. Ask: *Where do you think all the cursors will be located?*

c. Reveal the screen so that students can see that they are all in the first quadrant.

d. Repeat for the other quadrants. Try other patterns such as
- *Move to where your x-coordinate is 0 and your y-coordinate is any number (and vice-versa).*
- *Move to where x is 15 and y is any number (and vice versa).*

This will lead students to understand equations of vertical and horizontal lines.

e. Stop the activity and discuss the results.

4

Use **Quick Poll** (with *Open Response*) to ask questions such as:
- *In which quadrant are both coordinates positive?*
- *In which quadrant is the first coordinate positive and the second coordinate negative?*
- *Where must a point be located if its y-coordinate is 0?*
- *Is the graph of the equation y = 10 a vertical or horizontal line?*

Getting Started with the TI-Navigator™ System: Algebra