

What's The Point  
By: Mary A. Brese

Grade Level: 6-8  
Time Required: 45 minutes

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### Activity Overview:

Students will drag a point around the coordinate plane to gain a better understanding that the left coordinate is the **x** coordinate and it controls the horizontal placement of a point and that the right coordinate is the **y** coordinate and it controls the vertical placement of a point.

Students will learn to order a set of coordinates, view multiple points on the same coordinate plane and discuss **scatter plots** and their correlation.

### Concepts:

*In this activity, you will explore:*

- *Coordinate plane & Points*
- *Ordering sets of coordinates*
- *Scatter Plots-Correlations*

### Teacher Preparation:

Teacher will need to download the file into each student TI-*nspire* handheld unit.

[What's The Point.tns](#)

Print-out and make copies of the worksheet:

[What's The Point-Student Worksheet](#)

Before starting lesson, possibly the day before, the teacher should have a discussion about the coordinate plane, which includes labeling the horizontal & vertical axis and scale. The teacher should also review this lesson and be familiar with the student's objectives and responsibilities.

### Classroom Management:

The lesson is interactive on the TI-*nspire*, requiring students to record information and make statements about their observations on the printed worksheet, as well as saving their document in the appropriate folder on the handheld unit. The teacher should act as a monitor, to keep students focused and on task, providing prompts when students seem to get stuck. The teacher should use other students to assist in problem solving, rather than answer questions directly.

### TI-*nspire* Applications:

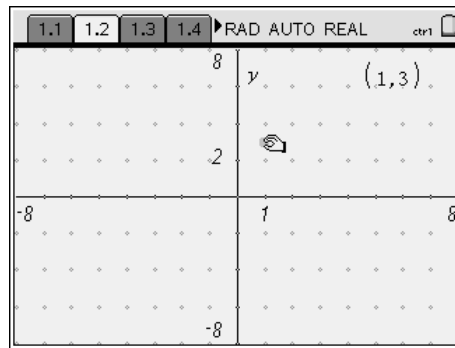
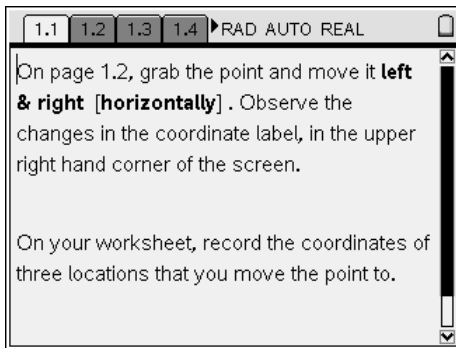
[What's The Point.tns](#)

**Directions:**

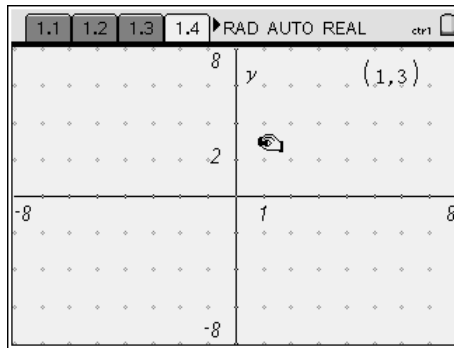
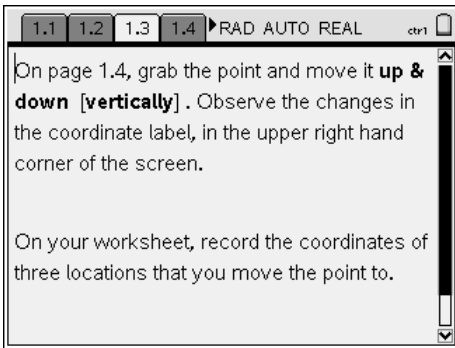
**Problem 1**

Page 1.1 will give students directions to go to page 1.2 [ctrl ▶] then to grab [move cursor to point, when it is blinking use ctrl (⌨)] & move the point horizontally, to several different locations, observing the changes in the coordinate label at the top of the screen.

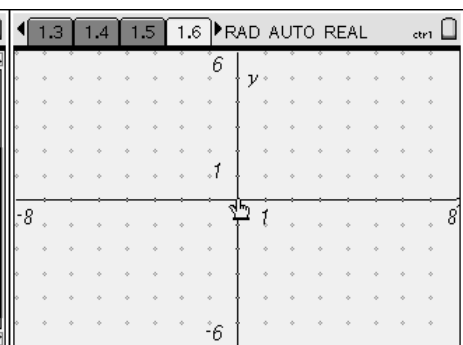
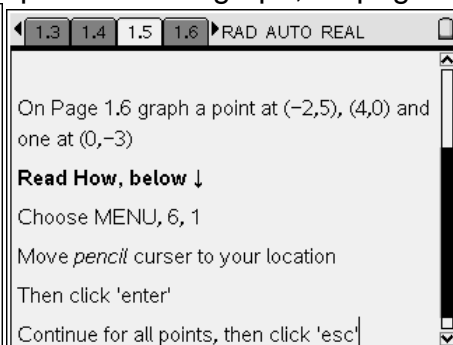
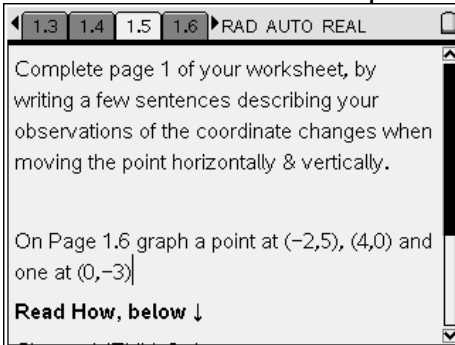
Students are to record coordinates of three locations that they move to, on the worksheet.



This is repeated on page 1.3 & 1.4 for the vertical movement.

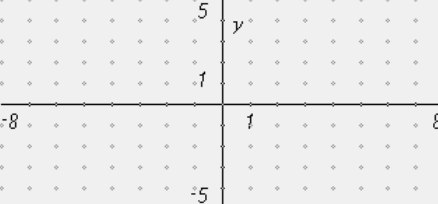


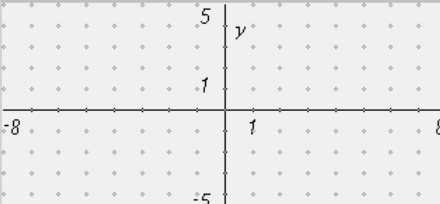
Page 1.5 prompts students to complete *Page 1* of their worksheet, and then they are given 3 points and instruction on how to plot the points on the graph, on page 1.6.



Problem 2

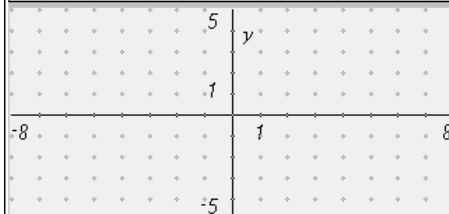
Page 2.1 of problem 2, prompts students to read ALL of *Page 2* of their worksheet, and then, as they move through the next few pages on the handheld they are asked to record their answers on *Page 3* of the worksheet.

<p>◀ 1.4 1.5 1.6 2.1 ▶ RAD AUTO REAL</p> <p>Read page 2 on your worksheet, before continuing with your activity.</p> <p>Use page 3 of your worksheet to record your answers for the following problems.</p>	<p>◀ 1.5 1.6 2.1 2.2 ▶ RAD AUTO REAL</p> <p>On page 3 of your worksheet, order the following coordinates then describe their correlation.</p> <p>(4,-1) (-3, -2) (6,2) (5,0) (7, 4) (0,-1)</p>	<p>◀ 1.6 2.1 2.2 2.3 ▶ RAD AUTO REAL</p> <p>Graph the points from page 2.2 to see if your correlation statement is correct.</p> 
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<p>◀ 2.1 2.2 2.3 2.4 ▶ RAD AUTO REAL</p> <p>On page 3 of your worksheet, order the following coordinates then describe their correlation.</p> <p>(3, -2) (-6,4) (5,-2) (7, -5) (0,1)(-4,3)</p>	<p>◀ 2.2 2.3 2.4 2.5 ▶ RAD AUTO REAL</p> <p>Graph the points from page 2.4 to see if your correlation statement is correct.</p> 	<p>◀ 2.3 2.4 2.5 2.6 ▶ RAD AUTO REAL</p> <p>On page 3 of your worksheet, order the following coordinates then describe their correlation.</p> <p>(-3, 2) (6,-1) (-5,-2) (7, 0) (0,-4)(4,5)</p>
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◀ 2.4 2.5 2.6 2.7 ▶ RAD AUTO REAL

Graph the points from page 2.6 to see if your correlation statement is correct.



When students are finished with Problem 1 & 2 on their handheld, they are to save their work in their designated folder and write the file name on their worksheet.

**Assessment:**

Students are to complete *Page 4* of their worksheet, independently, and then turn-in their worksheet before the end of the period.