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## Slope Slider

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# Generic Lesson Plan Template

You should submit this form in addition to any computer generated files/documents/models to your group folder on Angel. Please create a .zip file and upload the group of files as a single archive.

Name: Carrie Seitz
Grade level(s)/Subject taught: 7 <sup>th</sup> Math
Objectives:  Students will be able to <ul style="list-style-type: none"><li>• Identify the slope and y-intercept in an equation in the form <math>y=mx +b</math></li><li>• Describe the difference between lines by looking at the slope and y-intercept</li></ul>

Please provide a rich **one-page, single-spaced**, description or a *vision* of your best thinking on a way or ways you might teach the planned lesson. (approximately  $\frac{1}{2}$  page for the teacher role,  $\frac{1}{2}$  page for the student role). Also, construct a tentative rubric that you might use with your students (see example)

Items to include in your lesson plan: (Choose your discipline/concepts from your own area).

1. Write the Mathematical Concept or "key idea" that modeling will be used to teach: (e.g. Students use mathematical modeling/ multiple representation to provide a means of presenting, interpreting, communicating, and connecting mathematical information and relationships)

## Algebra Standard

- understand patterns, relations, and functions
- represent and analyze mathematical situations and structures using algebraic symbols

## Materials:

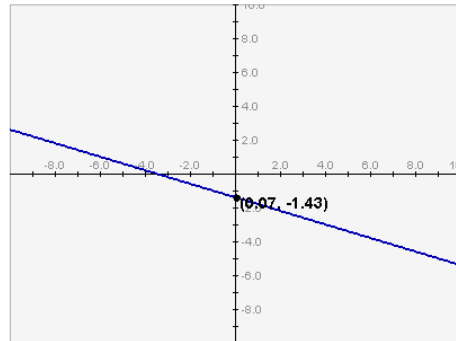
- Access Project Interactivates "Slope Slider"
- Worksheet for slope slider

- Poster paper and markers

Name \_\_\_\_\_ Date \_\_\_\_\_

Slope Slider Activity

Directions: Use the purple and green sliders  
To adjust the line. The equation for the line  
Will adjust while you move it!



$y = (-0.4)x + (-1.4)$

Find four lines that are "going up"

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

Find four lines that are "going down"

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

$Y = \underline{\hspace{1cm}} * X + \underline{\hspace{1cm}}$

How do the equations look similar for

Going

up? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Going down? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Find two equations that cross the y-axis *above* zero.

$$Y = \underline{\quad} * X + \underline{\quad}$$

$$Y = \underline{\quad} * X + \underline{\quad}$$

Find two equations that cross the y-axis *below* zero.

$$Y = \underline{\quad} * X + \underline{\quad}$$

$$Y = \underline{\quad} * X + \underline{\quad}$$

Find two equations that cross the y-axis *AT* zero.

$$Y = \underline{\quad} * X + \underline{\quad}$$

$$Y = \underline{\quad} * X + \underline{\quad}$$

Can you find a rule for where the line crosses the y-axis ?

\_\_\_\_\_

Slope Slider - Mozilla Firefox

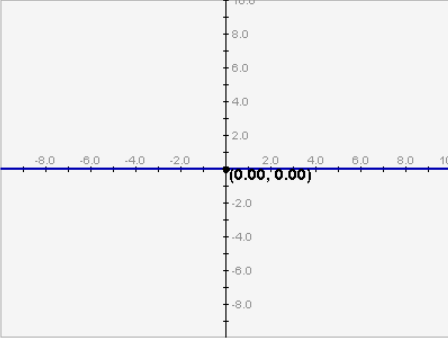
File Edit View Go Bookmarks Tools Help

file:///C:/Documents%20and%20Settings/cmst2006/Desktop/ProjectInteractivate/Project%20Interactivate%20Pr

Customize Links Free Hotmail Windows Marketplace Windows Media Windows

# Slope Slider

*what?* *how?* *why?*



$y = (0.0)x + (0.0)$

Applet flydata/FlyData started

start Lesson Plan #1 Carri... Project Interactivate ... Slope Slider - Mozilla ... 100% 12:10 PM