



# 7<sup>TH</sup> GRADE TI-73 ACTIVITY 35: MORE THAN ONE WAY TO FIND A SLOPE

### ACTIVITY OVERVIEW:

In this activity we will

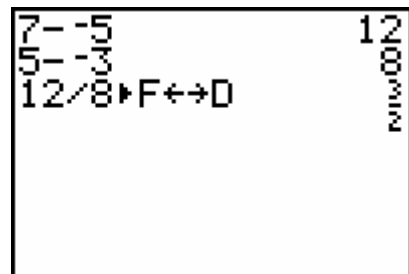
- Review and practice calculating slope of a line when you know two points on the line.

When you know two points on a line, you are able to calculate the slope of the line. Using the calculator, you can do this quickly, if you know how to enter your information correctly.

### Example 1

On a line are two points. Point 1 ( 5, 7)  
Point 2 ( -3, -5)

You can subtract the Y coordinates, subtract the X coordinates and then find the ratio of the two differences as a fraction. Use the  $\boxed{F\leftrightarrow D}$  key to convert the division to a fraction.



Try this method on these problems

1. (5,4) (3,6)
2. (-9,10) ( 3,12)
3. (-15, -7) ( -4,-5)

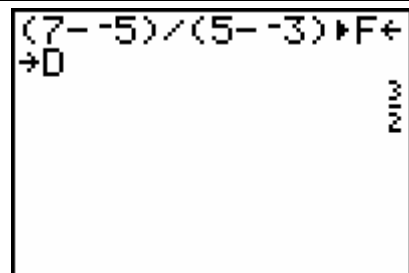
### Answers

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

You can also combine these operations in one expression In the first example, you could have entered the operations like the screen on the right.



Try this method on these problems

1. (7,-4) (14,4)
2. (-12,-6) ( 3,4)
3. (-14, -2) ( -8,-3)

Answers

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

Explain why the second method accomplishes the same result as the first method

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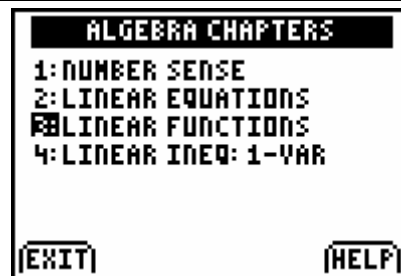
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**EXTENSION**

Use the Algebra 1 Part 1 application to practice mental calculation of slopes. Press the [APPS] key and Select **ALG1PRT1**. Press [ENTER] twice to get to the main menu as seen on the right. Select **3: Linear Functions**. Press [ENTER].



Select **2: Slope Using Coord** and press [ENTER] and then select **3: Activities** and press [ENTER]. Select the top activity and press [ENTER]. See the screen on the right.



Calculate the slope from the coordinates. Then use the up and down arrow keys to find the correct slope and press [ENTER]. Find a partner and work together or compete with different calculators. The second activity allows you to connect calculators and compete directly.

