



7TH GRADE TI-84 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.

```

7- -5           12
5- -3           8
12/8▶Frac      3/2
  
```

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.

```

(7- -5)/(5- -3)▶Fr
ac              3/2
  
```

Try this method on these problems

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

Answers

1 _____

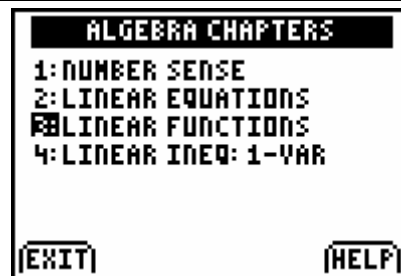
2 _____

3 _____

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

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.

