

# TEXTING TALENT

OBJECTIVE: To explore patterns related between time and the number of letters one can text on a graphing calculator.

PASS Standards: 2.1, 2.2cI, 2.2cIII, 2.2d; 3.1a,b; 3.2

Materials Needed:

- Watch with second hand / stop watch
  - Graphing Calculator / Cell Phone
  - Pencil
  - Colored Pencils
    - Blue, Red, and Green
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## 1.) GATHERING DATA

Use the graphing calculator to text the word MATH, with your thumb, as quickly as possible for random time frames, first with right hand, then with left hand and finally with both.

## 2.) RECORDING DATA

Fill in the tables for right hand, left hand and both hands.

## 3.) DISPLAYING DATA

Make a scatter plot that shows all three sets of data on the same coordinate grid. Use a different colored pencil for each set of data.

## 4.) ANALYZING DATA

- a.) Draw a line of best fit for each set of data on your graph.
- b.) Find the equation of the line of best fit for each set of data.
- c.) Write a comparison of all models. How are they alike? How are they different?
- d.) Do you prefer to text with your right hand, left hand, or both hands? Analyze the data for your preferred method. Is the slope greater than or less than your non-preferred methods? What does the slope represent in this situation?
- e.) How does the slope of the line relate to the number of letters texted?

- f.) Do the graphs ever intersect? If so, where? What does it mean if the graphs intersect? If the graphs do not intersect, what does this tell you?
- g.) Using the graph of your preferred method, predict how many letters you could text in 30 seconds.
- h.) Using the equation of your preferred method, how many letters could you text in 1 minute? 1 hour?

#### EXTENTION

- i.) Write a conclusion using your predictions for 1 minute and 1 hour. Do you think these are viable outcomes? Why?

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## Right Hand

Time	0					
Number of letters	0					

## Left Hand

Time	0					
Number of letters	0					

## Both Hands

Time	0					
Number of letters	0					

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		<b><u>Points Possible</u></b>	<b><u>Points Earned</u></b>
<b>Gathering Data</b>	Complete the table of values for right-hand, left-hand, and both.	5 points	
<b>Scatter plot and line of best fit</b>	Right hand Left hand Both hands	5 points 5 points 5 points	
<b>Writing equations in slope-intercept form</b>	Right hand Left hand Both hands	10 points 10 points 10 points	
<b>Conclusion</b>	Relationships Comparisons Predictions	10 points 20 points 20 points	
<b><u>Total points</u></b>		<b>100 points</b>	

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