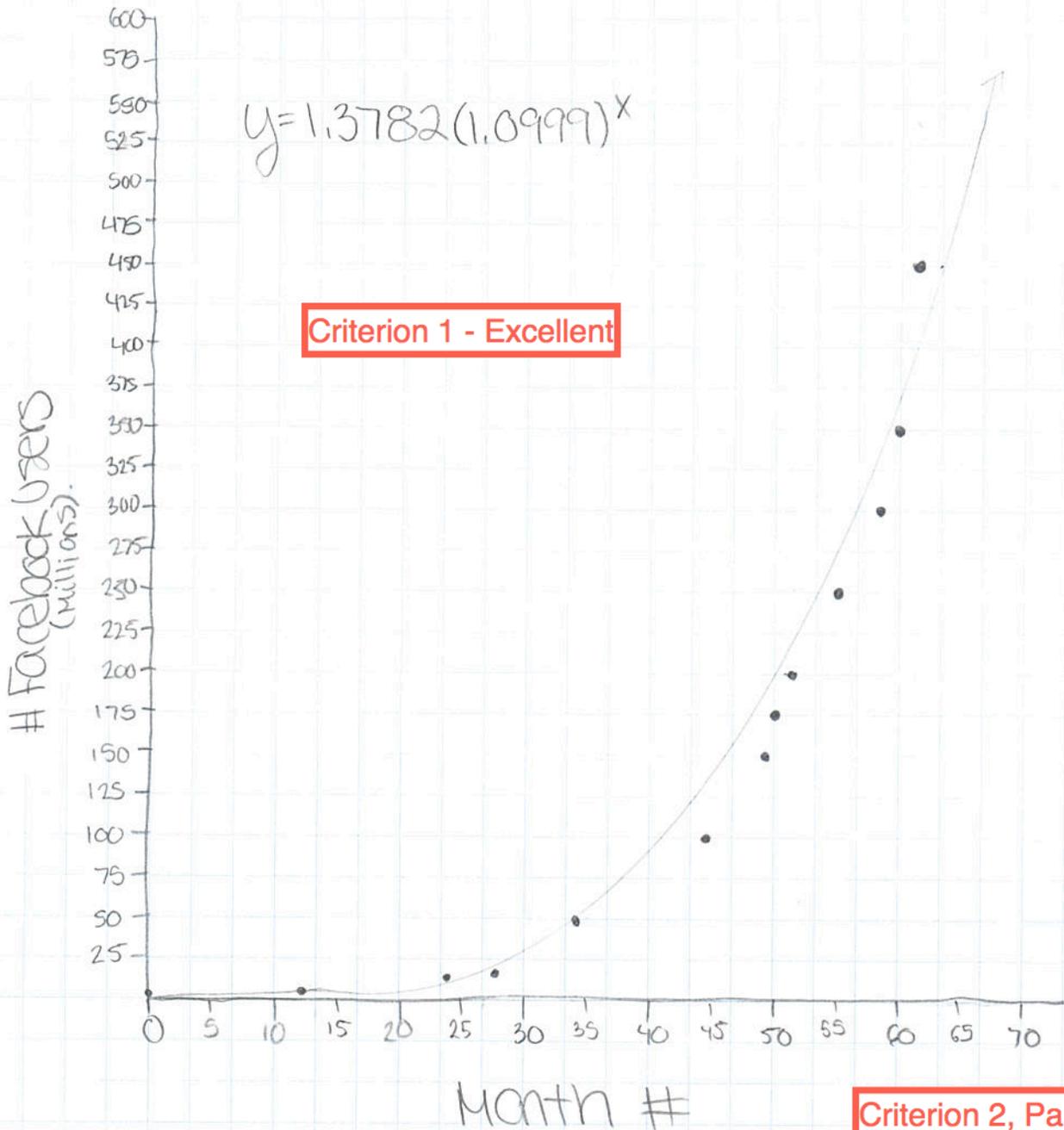


Facebook Users

Sample 2

Math 30-2



Criterion 2, Part 1 - Excellent

→ August 2012 = Month 92; $y = 1.3782(1.0999)^{92}$
 ≈ 8786.3163 Million (8 786 316 300)

This is not a reasonable estimation, because there are only 7 000 000 000 people in the world, and there can't be more Facebook users than there are people.

Criterion 2, Part 2 - Excellent

→ If it continues at the same growth rate, the # of Facebook users would reach one billion by Month 90, or by October 2010.

Criterion 3 - Excellent

Mathematics 30-2
Performance Assessment: Rubric
Facebook Users

Student Sample 2

Date _____

Level Criteria	4 Excellent	3 Proficient	2 Adequate	1 Limited *	Insufficient/ Blank *
<p>Graph data and determine the exponential function that best approximates the data. (Relations and Functions 6) [C, CN, PS, T, V]</p>	<p>Draws a detailed graph and determines a correct regression equation.</p> <p><i>The student's graph is detailed, correctly titled and labeled. The regression equation is correct.</i></p>	<p>Draws a sufficient graph and determines a correct regression equation.</p>	<p>Draws a simplistic graph and determines a correct regression equation.</p>	<p>Unable to determine a regression equation.</p>	<p>No score is awarded because there is insufficient evidence of student performance based on the requirements of the assessment task.</p>
<p>Calculate the number of users and discuss the reasonableness of the answer (Relations and Functions 5) [C, CN, PS, R, T]</p>	<p>Applies the regression equation correctly to predict the number of users.</p> <p><i>The student has used the regression equation correctly.</i></p> <p>Provides a perceptive discussion of the reasonableness of the answer.</p> <p><i>The student is perceptive in addressing the world population compared to Facebook users.</i></p>	<p>Applies the regression equation in a substantially correct manner to predict the number of users.</p> <p>Provides a thoughtful discussion of the reasonableness of the answer.</p>	<p>Applies the regression equation in a partially correct manner to predict the number of user.</p> <p>Provides a simplistic discussion of the reasonableness of the answer.</p>	<p>Unable apply the regression equation function to predict the number of users.</p>	

Mathematics 30-2
Performance Assessment: Rubric

Facebook Users

<p>Solve an exponential equation (Relations and Functions 4)</p> <p>[C, CN, ME, R]</p>	<p>Solves the exponential equation correctly to predict when there will be one billion users.</p> <p>The student has correctly used the equation to determine the month. The teacher might want to encourage this student to show more supporting work.</p>	<p>Solves the exponential equation in a substantially correct manner to predict when there will be one billion users.</p>	<p>Solves the exponential equation in a partially correct manner to predict when there will be one billion users.</p>	<p>Unable to solve the exponential equation to predict when there will be one billion users.</p>	
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* When work is judged to be limited or insufficient, the teacher makes decisions about appropriate intervention to help the student improve.