

### Quiz III - Algebraic Connections

#### DO NOT WRITE ON THIS QUIZ!

Use your own paper, or the computer, to report the answers to the questions. Make sure you use the problem numbers, show all work, document your solutions, and include the answer to the question! Name, Date, Period, and What it is.

1. During this quiz, use one of the following technologies, in an effective attempt to solve one or more of the questions below. Use TI Interactive!, GroupWise, Graph Link, Word, and/or Graphical Analysis. Report the following information with your use: a) what problem you were solving, b) which of the technologies was used, and c) why you think this was an effective use of the technology to solve the problem(s).
2. Get the QUIZ3 program and run it. Report the number you used. In this program the list HOUR ( $L_3$ ) is for hours (X), and the list ALIVE ( $L_4$ ) is for the number of bacteria still alive (Y).
3. Calculate the BIG 7 for the ALIVE data.

mean	median	mode	average	maximum	minimum	range
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4. Make a Scatter Plot of the data from problem 2.
  - a) Give the GRAPH and WINDOW.
  - b) Determine the best Model for the graph and name it.
  - c) Give the best fit Bubble Baby equation and Graph.
  - d) Use your equation to predict the number of bacteria alive at 2.7 hours.
5. Find the following:
  - a) The slope of the line that passes through the points  $(-15, -1)$ ;  $(15, 9)$ ; and  $(45, 19)$ .
  - b) The equation of the line that contains the point  $(5, 9)$  and has a slope of 4.
  - c) Give the slope and the y-intercept for the line  $y - 2x = 4$  ( $2 - 1$ )
6. How much will Bic need to score on the Ability to Test item to pass Algebraic Connections if he makes a 90% on his 2<sup>nd</sup> nine-weeks Progress Report and a 75% on his final? Below see his Portfolio Checklist scores.

Item	1 <sup>st</sup> 9 weeks	2 <sup>nd</sup> 9 weeks
OverArching Process	2	3
7 Parts of AlgConn	2	2
Ability to Test	3	?
Working W/Tech	3	2
Growth	2	1
Free/Web	1	2
Journal	0	1

7. Using the algorithm from the book on page 277, how many guesses will it take to guess my number (77) for the game of 1 to 100?