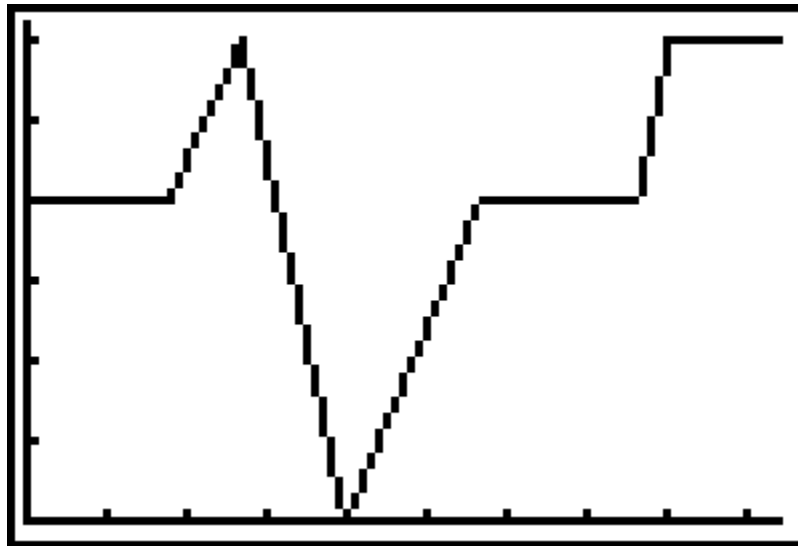


Examination II – 3rd Nine Weeks

Algebra 1

Answer the following on your own paper, showing your work, and answering all questions. Remember to include your name, date, period, and assignment designation. You may use your Portfolio, notes and work that you have done this nine weeks on this examination. There is a two day limit in class on this activity, with the first day being the only one with full computer access. You will need 2 Pictures (**PIC1** and **PIC3**), and 4 List (**L₁**, **L₂**, **LFEET**, and **LMEN**).

1. Two times during this examination, use Graph Link. Document your use of it, and identify which problem you used this application on. This should be an appropriate and effective use!
2. Using the two of the lists that I sent to you by email, move the data into Graphical Analysis, or Excel, and make a graph. Determine the quadratic equation that is modeled by the data, and explain how closely you think the equation fits. The data are for the feet size of men, where X is the feet size and Y is the number of men with feet those sizes. The files are for the TI-83.
3. Explain what is happening in the graph below, using the perspective of the Trip to Tulsa data experience. (**PIC1**)



4. Using two lists that I sent you, clean up the time (in **L₁**) and the Distance (in **L₂**). Multiply the time by 100, and round to 1 decimal place, and just multiply the distances by 100.

5. Use “Bubble Boy” to get the best Linear to model the segment from 4 to 3 meters (400 to 300 centimeters) for the data in question #4. If the time is in centiseconds and the distance is in centimeters, give the slope and Y-intercept of the linear model. Report the equation, and the graph, with the Scatter Plot.
6. Use 5 of the 7 methods to solve the following. Use only one method per problem:

$$a) \quad |x + 8| = 13$$

$$b) \quad |7x - 11| = 34$$

$$c) \quad |5x - 3| + 7 = 42$$

$$d) \quad |6 - 3x| - 2 = 12$$

$$e) \quad 3 * |2x - 7| - 9 = 4$$

7. Who did you do for the Mathematics in February assignment? Why?
8. Solve the following using *i*) Guess and Test or the Algebra way; and *ii*) Table or Graph.

$$17 < 5 - 3x < 29$$

9. Answer the following questions for the given Absolute Value expression:

$$-2 | 3x - 11 | + 7$$

- a) Fill in the Table of Values

X	-5	-4	*	0	3	7	9
Y	*	*	-21	*	*	*	*

- b) Make an XYLine Plot of the data in the table above.
- c) Find the 5 Values: (X and Y) Max, Slope of the Left and the Right, and the Y- Intercept.
- d) Write the Definition of the Absolute Value expressed.
10. Using PIC3 that I sent you, turn off all equations (**o**) and all Plots, do a **q** , and then **q** . Go to **o** and key in the Absolute Value Function that will go through one of the sets of points. Use the General Form: $A | Bx + C | + D$. Report your best fit with the Graph.