

Spring 1999 Final for Others

Algebra 1

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!

1. During this examination, use two of the following technologies, in an effective attempt to solve one or more of the questions below. Use P-Mail, Graph Link, Excel, Word, and/or Graphical Analysis. Report the following information with each 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. For the following Absolute Value function, identify and report the following information:

- a) Maximum or Minimum point;
- b) X-Intercept(s);
- c) Y-Intercept; and
- d) Slope of the left and right sides.

$$y = -2 | 3 (x - 4) | - 11$$

3. Calculate Hopo's grade for the Semester if we get a score of 55% on this Final.

Item	3 rd 9 weeks	4 th 9 weeks
OverArching Process	3	2
7 Parts of Algebra	2	3
Testing	1	4
Technology	3	1
Growth	4	0
Free	0	2
Journal	3	4

4. Execute the FINALS program and report the number you used as your ID. Use L_2 , which is height in millimeters, to identify the following values:

n mean median mode average maximum minimum

5. Using the lists from the FINALS program, convert L_2 to meters and make a XYLine plot using L_1 as the time in seconds for X and L_2 as Y.

6. Find the average ratios of the heights for the 5 Bounces as a percent from the graph in question #5.

7. Select one of the bounces from the graph in question #5 and make a Quadratic that fits the curve. Use the $y = A (x - H)^2 + K$ model.

8. Complete the Table placing your answers on your own paper where the * appear.

X	Y	Rule
*	7	$Y = 3* 4X - 11 + 7$
-11.4	2.5	*
10	*	$Y = 4X^2 - 2X + 7$
*	3	$Y < 4X - 7$
14	*	$2Y + 5 = 3X - 7$
*	83.36895	$Y = 400 (0.77)^X$

9. Complete the Multiplication indicated below and write out the algebraic expression.

*	∃	β
β		
∃		
∇		

10. Using 4 of the 8 ways, solve these problems. Use one way per problem:

a) Linear: $\frac{1}{2}x - \frac{5}{2} = 10$

b) Quadratic: $x^2 + 2x - 3 = 0$

c) Absolute Value: $| 3(x - 7) | + 11 = 20$

d) Exponential: $150 * (0.85)^x = 127.5$