

Name: _____
Date: _____
Class: _____

Algebra
Review
Graded Homework 33

Show all of your work for every problem. The numbers in the brackets are the points that each problem is worth. Multiple Choice Problems are worth 3.
NO WORK = ZERO CREDIT

1) [3] Using the function below, find and explain the value when $x = 2$, and $x = 1.9$

$$w(x) = \begin{cases} -x^2 + 2x + 2 & x < 2 \\ x^2 - 6x + 5 & x \geq 2 \end{cases}$$

2) [4] Find the equation of the line of best fit and create a residual plot. What does the residual plot let you know about your line of best fit?

x	1	3	6	7	8	9	12
y	75	125	265	450	515	1030	1300

3) [3] Find the equation of a line that passes through (2, 7) and (9, 9)

4) [3] The value of an investment has been decreasing by 1.5% per month. The initial value of the investment was \$17,250. How much is it worth at the end of the 2nd year?

5) [3] Find the correlation coefficient for the following set of data and explain what it means.

x	f(x)
1	12
2	19
3	26
4	33

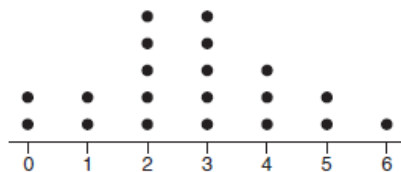
6) [3] Joe ran a half mile in 4 minutes and 10 seconds. What was his average speed in feet per second?

7) [3] A public opinion poll was taken to explore the relationship between age and support for a candidate in an election. The results of the poll are summarized in the table below.

Age	For	Against	No Opinion
21-40	30	12	8
41-60	20	40	15
Over 60	25	35	15

What percent of people polled were over 60?

8) [3] The dot plot shown below represents the number of pets owned by students in a class.



What is the percentile rank for a student who owns 3 pets?