

Name: _____
Date: _____
Class: _____

Algebra
Review
Graded Homework 32

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] Find the average rate of change from $x = -6$ to $x = -2$ using the function $f(x) = -2x^2 - 4x + 6$.

2) [3] Sketch a graph of the following geometric sequence for $n = 1$ through $n = 3$ using $a_0 = 2, a_n = -(a_{n-1})^2$

3) [4] Using $f(x) = 2x^2 - 1x + 7$, find all values of x such that $f(x) = 62$.

4) [3] The value of a car is decreasing by 4.25% per year. The car was originally purchased for \$18,750. How much did the value decrease during the 5th year of ownership? Explain how you found this answer.

5) [3] The area of a rectangle is 60 square inches. The length of the rectangle is 4 more than its width. Find the perimeter of this rectangle.

6) [4]

Number of Children	2	0	5	1	3	3	2	1	1
Number of Pets	2	3	1	4	3	2	3	4	6

Using the data in the table, find the residual value for $x = 5$

7) [3] Using the expression $-2x - 7x^2 + 4 - 3x^3$ state the leading coefficient and the degree of this expression and explain.

8) [6] You are buying hot dogs and hamburgers for 2 different parties. The first party you buy 3.2 pounds of burgers and 6.6 pounds of hot dogs and pay \$32.55. The 2nd party you buy 4.4 pounds of burgers and 3.2 pounds of hot dogs and pay \$28.60. The next week the store is offering 10% off burgers and 25% off hot dogs. How much would 4 pounds of burgers and 5 pounds of hot dogs cost during this sale week?