

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Class: \_\_\_\_\_

Algebra  
Review  
Graded Homework 10

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] Which value is larger?  $f(2)$  or  $g(-3)$  using  $f(x) = 6x - 3$  and  $g(x) = -2x^2 + 28$ ?

2) [3] Solve for  $y$ :  $9x + 6y = 3y - 10x + 18t$

3) [3] Graph:  $10x - 4y < 16$

4) [4] 3 consecutive even integers are related in the following manner. The sum of the 1<sup>st</sup> and half the 3<sup>rd</sup> is the same as 48 less than twice the 2<sup>nd</sup>. What is the smallest of these 3 integers?

5) [3] Solve and graph:  $2(5 - x) \geq 16 - 3x$

6) [3] Over what interval is the function  $f(x) = x^2 - 8$  increasing?

7) [4] Draw a graph of the piecewise function that is defined as:  $g(x) = 2x^2 - 4$  for  $x < 0$  and  $4 - \frac{1}{2}x$  for  $x \geq 0$

8) [3] Is  $(-2, -4)$  a solution to the following function?  $q(x) = \frac{x^2 - 3x + 6}{-x^2}$