Name: _____ Algebra
Date: _____ Review
Class: _____ Graded Homework 15

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

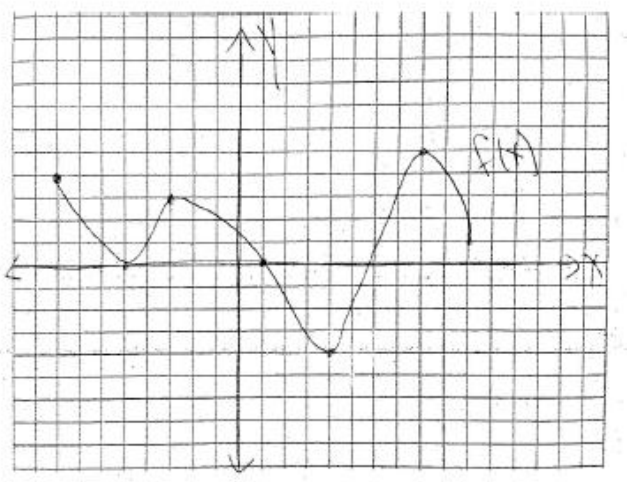
1) [3] Find the equation of a line that passes through (-2, -5) and is perpendicular to a different line that passes through (1, 4) and (4, 1).

2) [3] Evaluate when x = -2 and y = -4: $\frac{x^2-y^2}{3xy} + 5x - 3y + 2(xy)^2$

3) [3] What is absolute maximum for the following function on the interval $0 \leq x \leq 3$?

$f(x) = x^2 - 2x - 1$

4) [3] Using the following function, what is the average rate of change from x = -3 to x = 4?



5) [3] Using the graph in number 4, find the following: $f(8) - f(1) * f(4)$

6) [3] Solve: $3(x - 6) - 8 = 35 - 4x$

7) [4] 3 people are comparing the elevation of their house above sea level. Person B knows that he lives 50 more than half as many feet above sea level as Person A. Person C knows that he lives 38 less than 3 times as many feet above sea level as Person B. If you add the elevation of Person A and Person C, it is exactly double the elevation of Person B. What is the elevation of Person A's house in relaiton to sea level?

8) [3] If $f(x) = 10 - (6 - x)$, determine which x satisfies $f(x) = 0$