Name_____

Each problem is worth 5 point: 3-points for Work/Explanation and 2 points for the correct answer (unless otherwise noted). *Use another piece of paper to complete your work*. Number the problems and box your answers. Partial credit will be awarded. Neatness counts. Single cross outs are ok.

Write and sign the Academic Honesty Statement below.

Signature_____

Simplify.

1) $4\{[6(x - 1) + 9] - [2(3x - 1) + 9]\}$

Solve and check your answer (–1 point if no check)

2) $9x + 2(3x - 7) = 6 - 5x$

Solve and graph the solution set. The answer is a fraction.

3) $-5x - (3x + 7) > 7 - (4x + 2)$

Write the equation of the line passing through the indicated points. Write your answer in slope–intercept, point–slope and standard form. Then graph the equation.

4) $(5, 0)$ and $(2, 5)$

Find the function value. No calculator. Show the arithmetic.

5) Find $f(-3.56)$ when $f(x) = -3.57x - 12$.

Solve using the substitution method. (–1 point if no solution check)

6) $y = 2x + 4$
   $2x + y = 12$

Solve the system of equations by the elimination method.

7) $x - 4y = -35$
   $9x - 5y = -98$

Solve by writing a Matrix Equation and using a graphing calulator

8) $3x - 2y + z = 2$
   $x - 3z = -2$
   $2x - y + 4z = 5$

Graph by completing the table and plotting points.

9) $f(x) = 3^x + 1$
   See notebook

10) A house was valued at $210,000 in the year 2015. The value appreciated by 1.3% annually through 2018. Assume that the house value continues to grow by the same percentage. Write an exponential function to represent this situation. What should the value equal in the year 2030?