Name:
Algebra 2
2016
Final Exam Study Guide

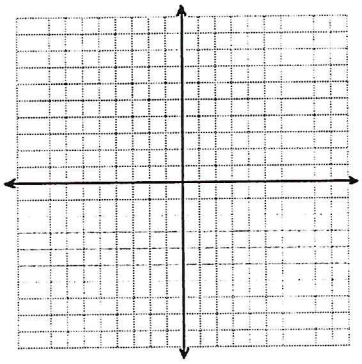
NC = No calculator (not even scientific... NONE)

* Show your work on separate sheets of paper. You may need graph paper. NO WORK, NO CREDIT

UNIT 1: SYSTEMS OF EQUATIONS (CH3)

1. NC Solve the following system of equations: $\begin{cases} y = -\frac{5}{3}x + 3 \\ y = \frac{1}{3}x - 3 \end{cases}$

   a. What method (elimination, substitution, or graphing) would be best to solve this system? Why?



   b. Solve the system by graphing.
   c. Check your solution.

2. NC Solve the following system of equations: $\begin{cases} y = 6x - 11 \\ -2x - 3y = -7 \end{cases}$
   a. Which method would be the best to use for this system? Why?
   b. Solve the system by **substitution.**

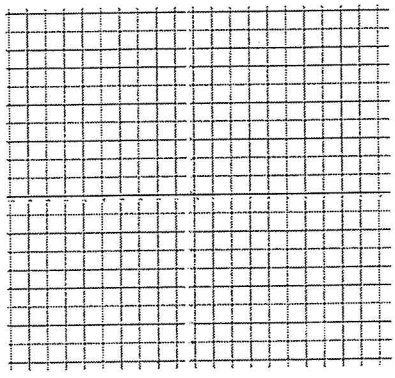
3. NC Solve the following system of equations: $\begin{cases} 5x + y = 9 \\ 10x - 7y = -18 \end{cases}$
   a. Which method would be the best to use for this system? Why?
   b. Solve by **elimination.**

4. NC Solve the following systems of equations using the method of your choice.

a) $\begin{cases} y = 5x - 7 \\ -3x - 2y = -12 \end{cases}$ b) $\begin{cases} -4x + 9y = 9 \\ x - 3y = -6 \end{cases}$ c) $\begin{cases} y = \frac{1}{3}x - 3 \\ y = -x + 1 \end{cases}$

5. NC Graph the following system of inequalities. Then, circle the points below that are solutions to the system.

$y < -3x - 4$
$y \geq \frac{1}{2}x + 3$



Circle the solutions to the system:

(0, 0)	(-4, 3)	(-7, 1)
(5, 3)	(-2, -3)	(-3, -1)