*15 questions
*Calculators allowed
*Show all work/steps- use separate paper
*Recommend time frame 45min -60min

Concept of Systems

1. True or False? Linear systems only have one equation.
2. Define the solution to a linear system in your own words.
3. Name three methods to solve a linear system.
4. Given any linear system- what could be the possible solutions? (hint: 3 types)
5. Give one example of a real-life situation that can be described as a system.

Solving Systems

6. Determine if $(2, -3)$is a solution to the system: $\begin{cases} 3x + 2y = 8 \\ 6x - 9y = 10 \end{cases}$
7. Solve by graphing(graph paper needed): $\begin{cases} -2x + 2y = 0 \\ x + y = -8 \end{cases}$
8. Solve using the Substitution Method: $\begin{cases} -x + y = 2 \\ y = 3x \end{cases}$
9. Solve using the Substitution Method: $\begin{cases} -6x - 2y = 2 \\ 4x + y = 1 \end{cases}$

10. Solve using the Elimination/Linear Combination Method: $\left\{\begin{matrix} -2x + 2y = 6 \\ 3x - y = 3 \end{matrix}\right\}$

11. Solve using the Elimination/Linear Combination Method: $\left\{\begin{matrix} 2x + 4y = 14 \\ 3x - y = 14 \end{matrix}\right\}$

12. Solve the system by any method: $\left\{\begin{matrix} 8x - y = -1 \\ -10x + 2y = 5 \end{matrix}\right\}$

13. Solve the system by any method: $\left\{\begin{matrix} y = 2x + 7 \\ x - y = -2 \end{matrix}\right\}$

14. Solve the system by any method: $\left\{\begin{matrix} -x - 6y = -3 \\ x - 2y = 11 \end{matrix}\right\}$

15. Solve the system by any method: $\left\{\begin{matrix} -x + y = -6 \\ 2x + 2y = 0 \end{matrix}\right\}$